

*Fig. 1*

NORMAL CELL

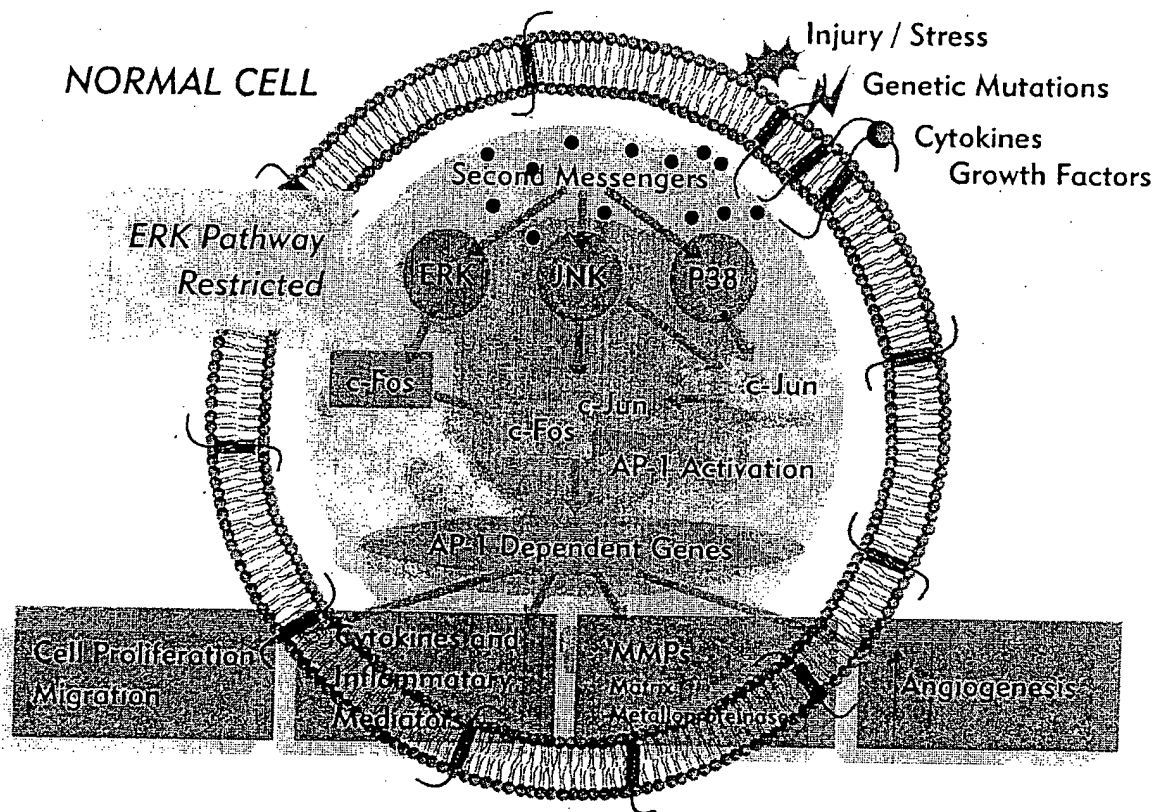
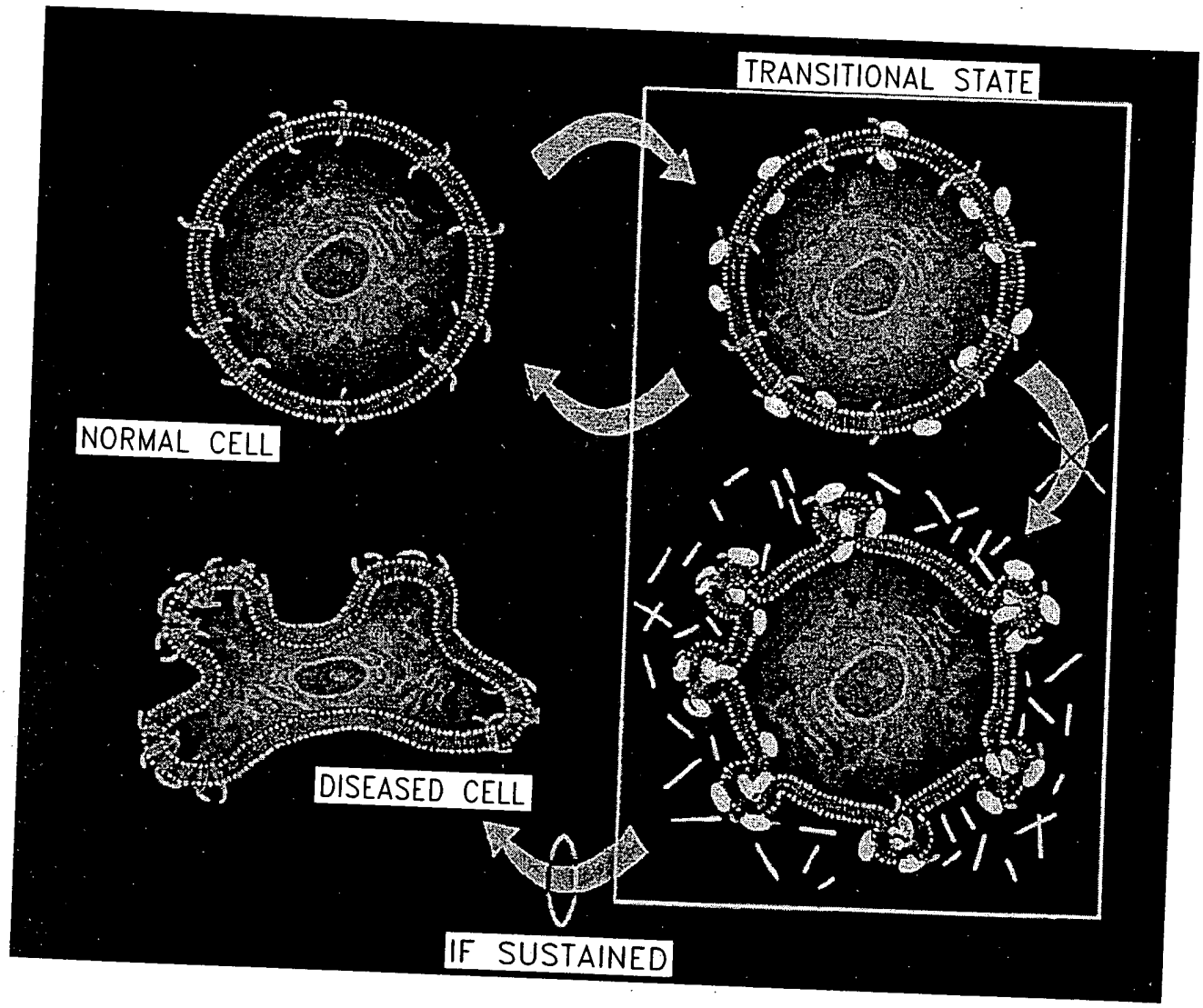


Fig. 2

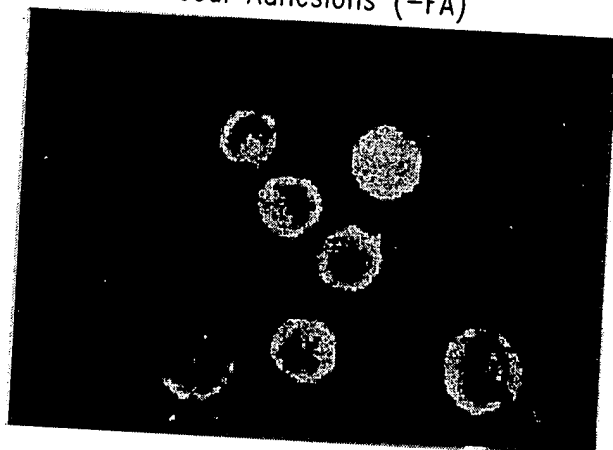
005007 0105500



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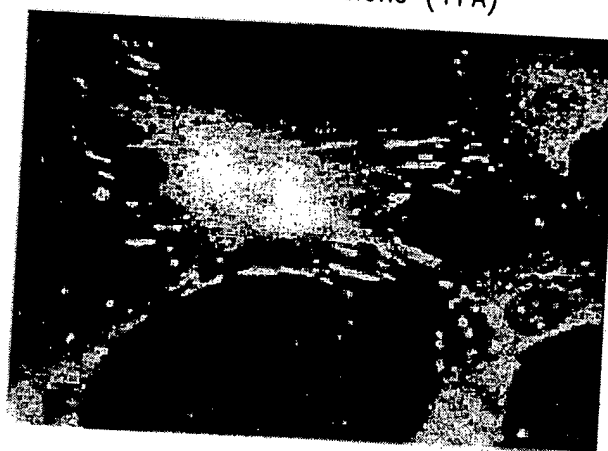
Fig. 3

-Focal Adhesions (-FA)

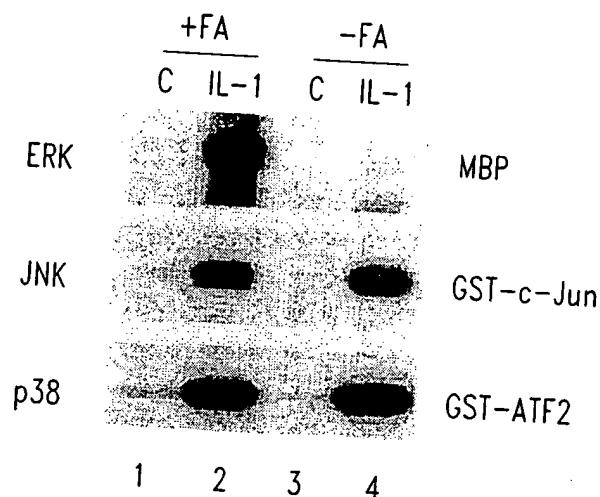


*Fig. 4A*

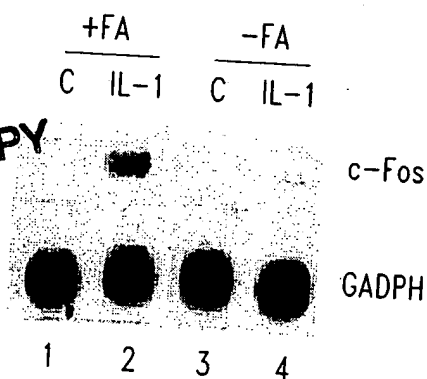
+Focal Adhesions (+FA)



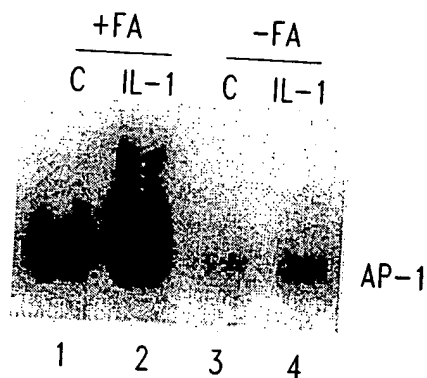
*Fig. 4B*



*Fig. 4C*



*Fig. 4D*

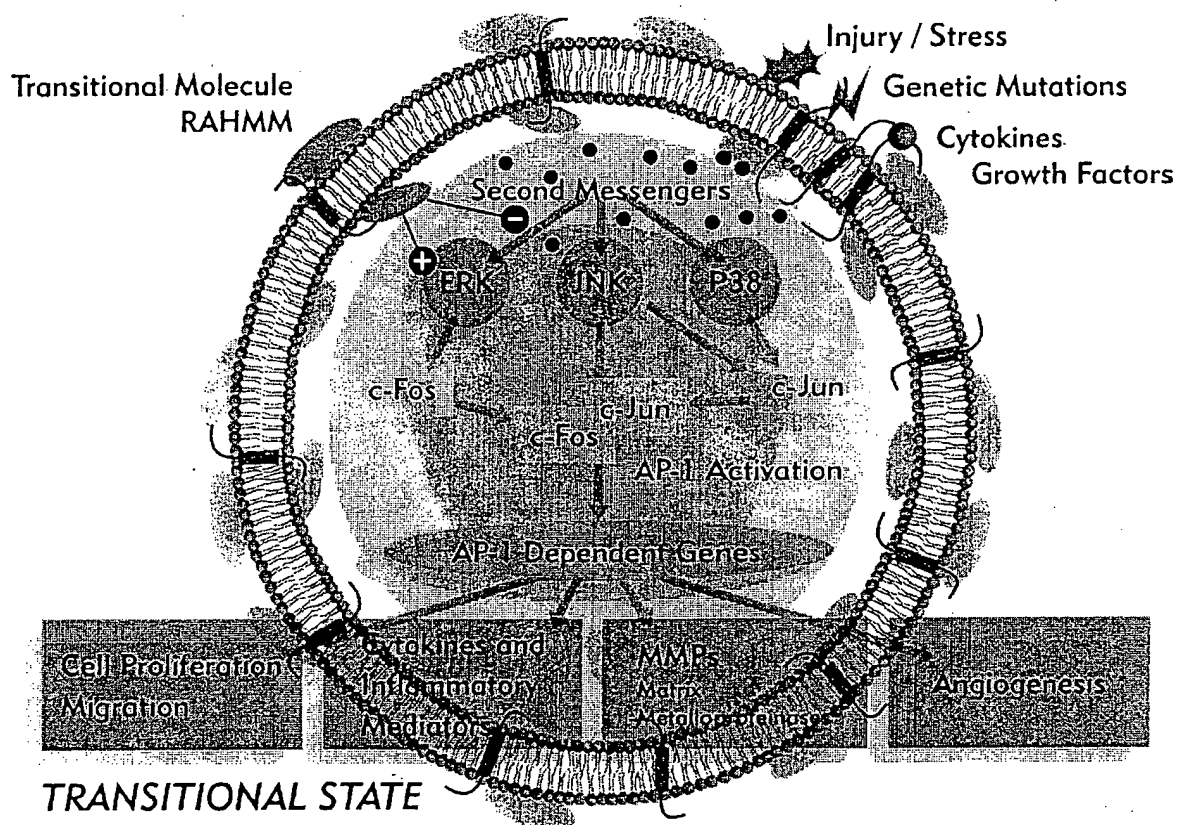


*Fig. 4E*

09665010-100500

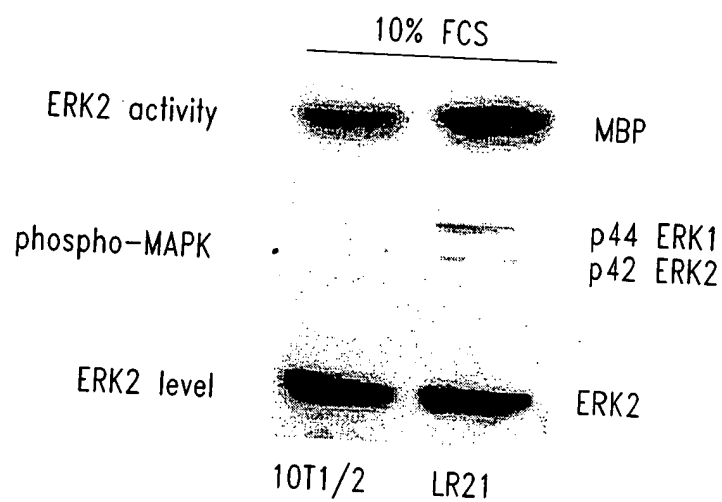
NOT AVAILABLE COPY

005007 0T058960



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Fig. 5



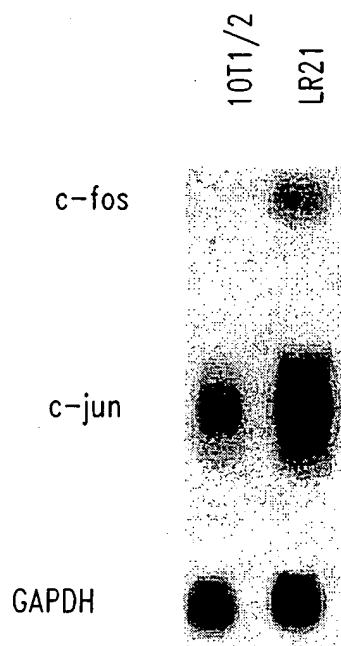
*Fig. 6A*



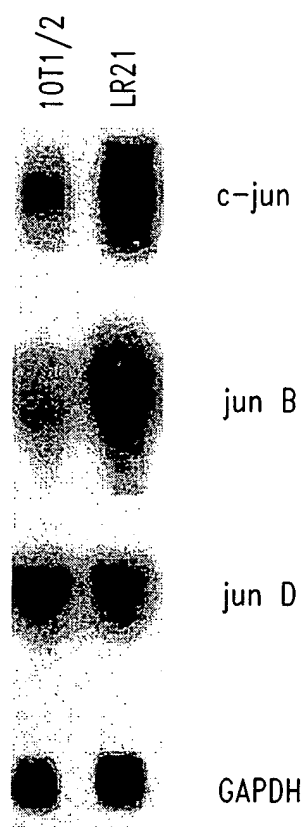
*Fig. 6B*

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*Fig. 7A*



*Fig. 7B*

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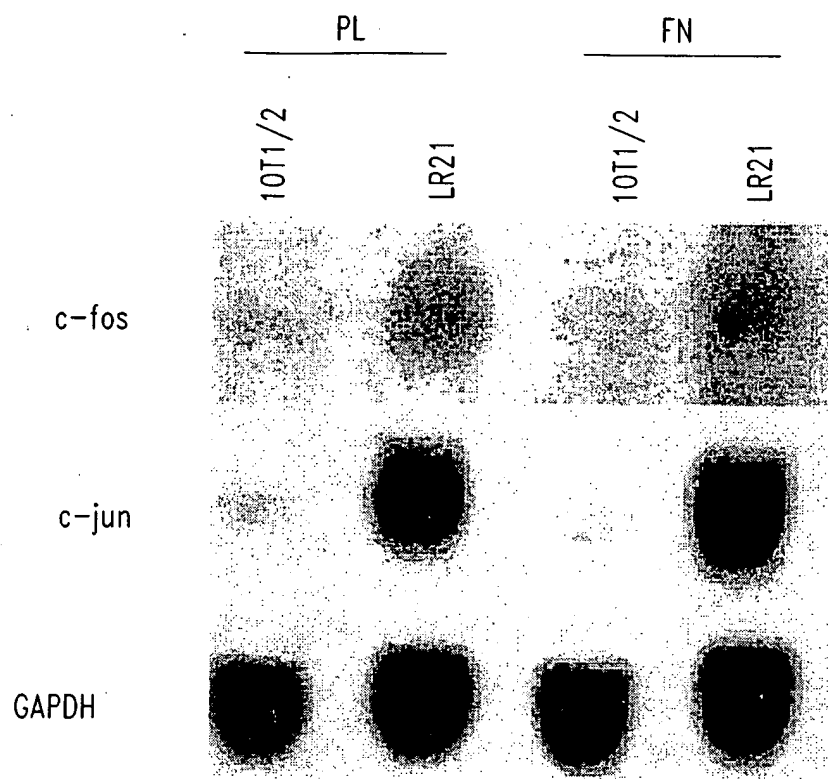


Fig. 8

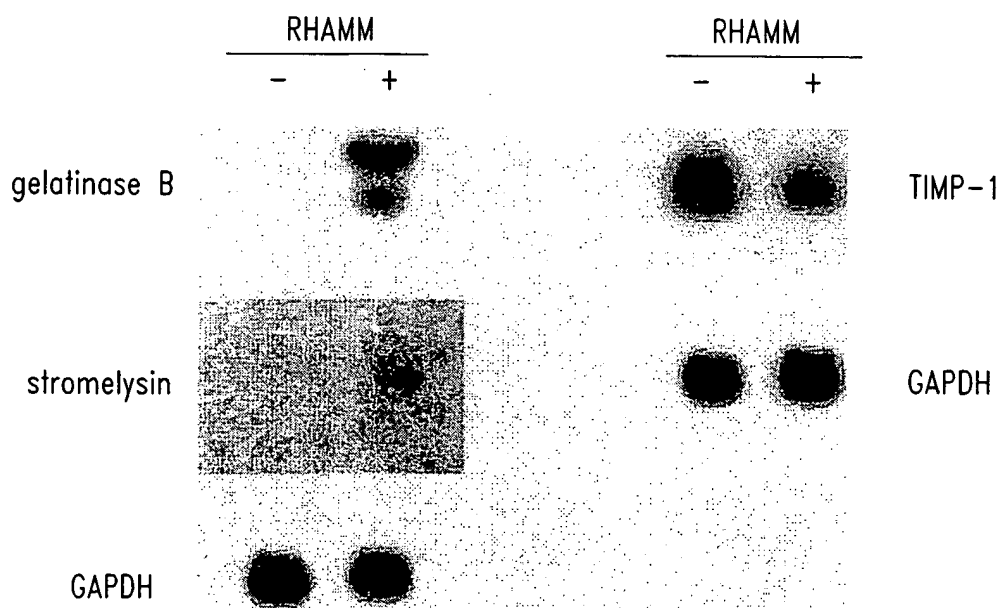
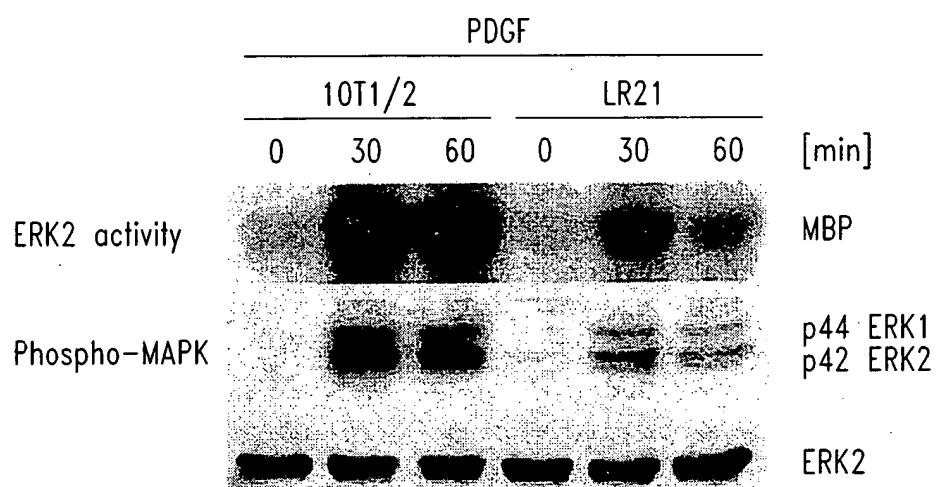


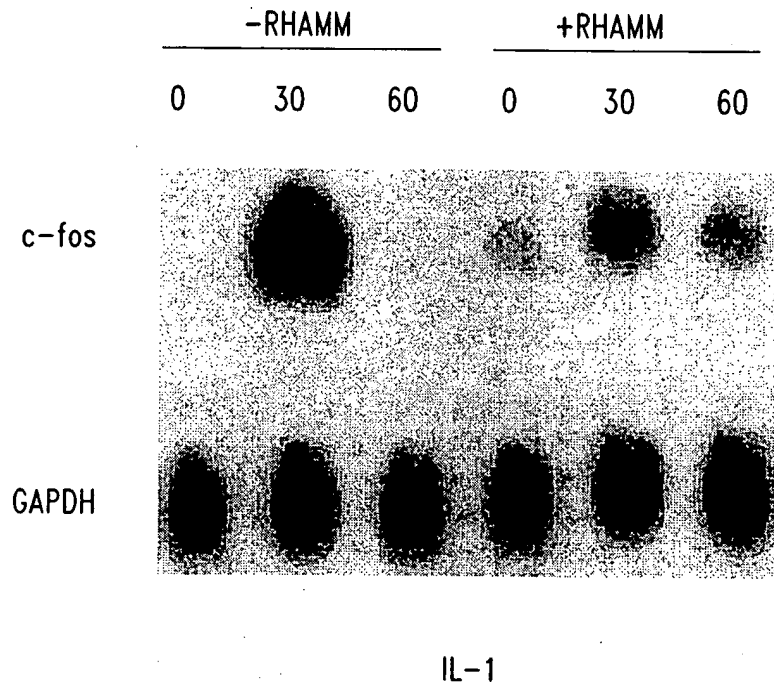
Fig. 9



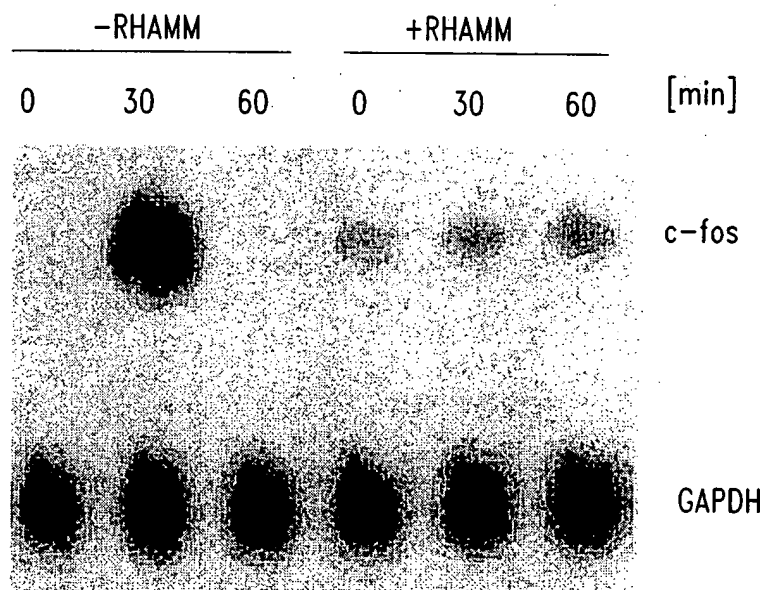


*Fig. 10*

005004" 07058960



*Fig. 11A*



TNF $\alpha$

*Fig. 11B*

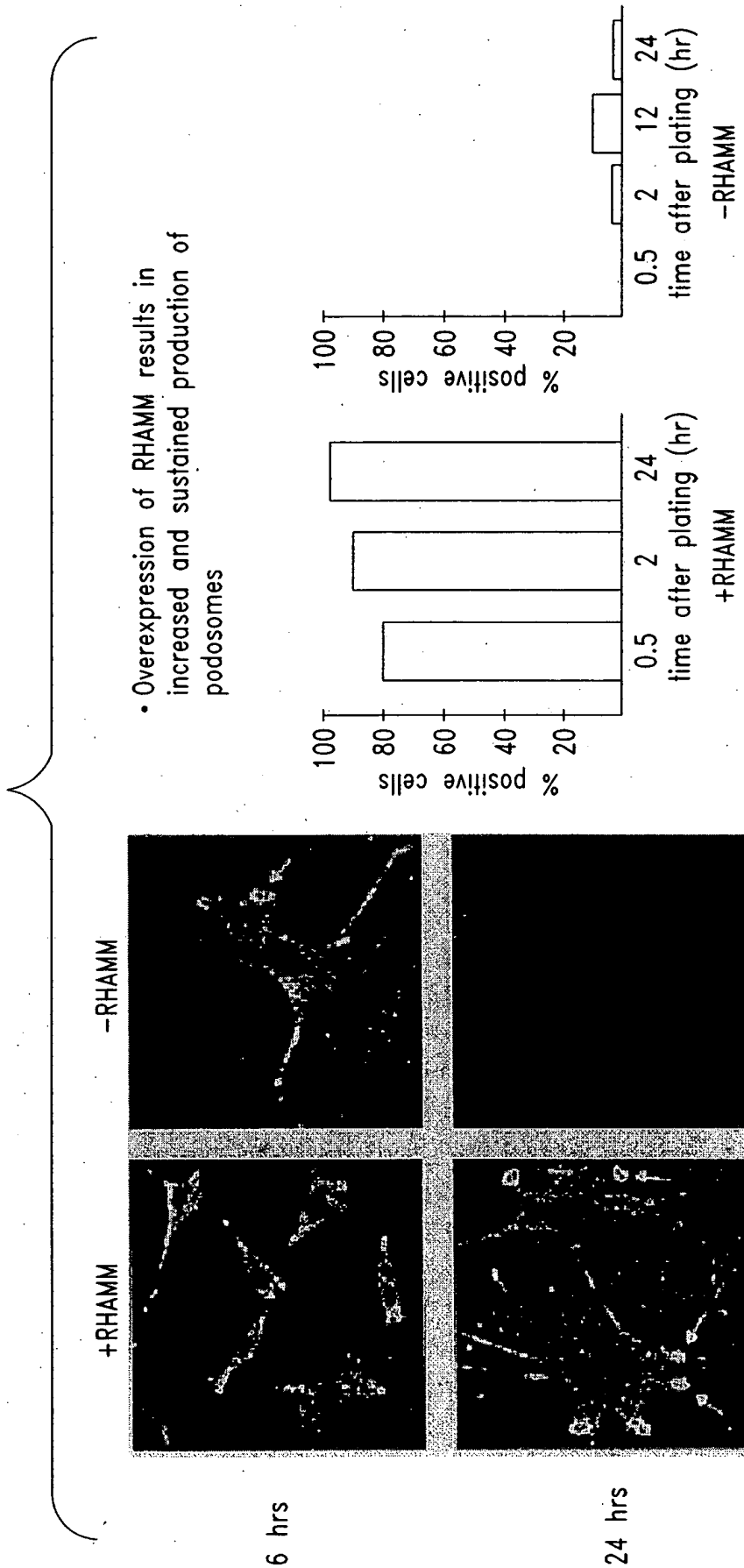
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+RHAMM cells make less focal contacts than their parental cells (-RHAMM)

*Fig. 12A*

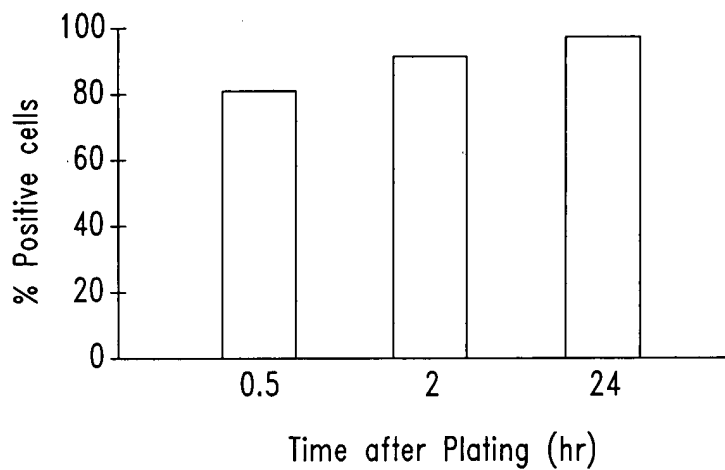
*Fig. 12B*



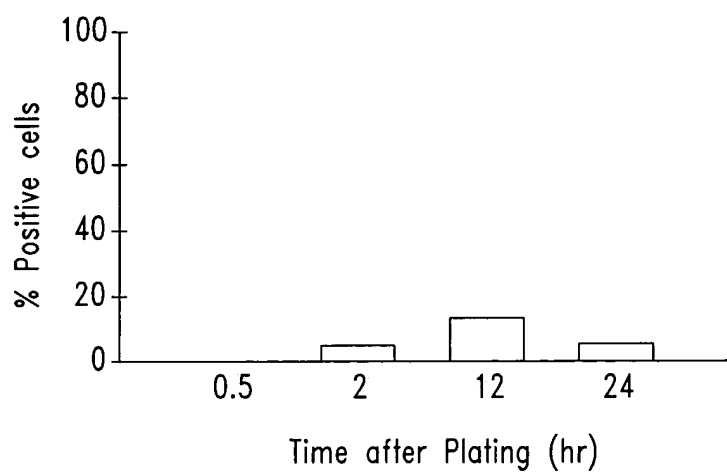
- In most cells responding to injury, podosomes are formed and disassembled rapidly (-RHAMM, 6 vs. 24 hrs)

Fig. 13

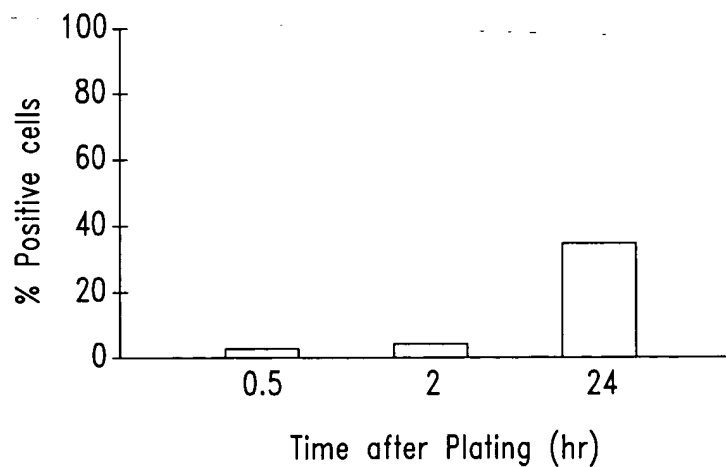
BEST AVAILABLE COPY



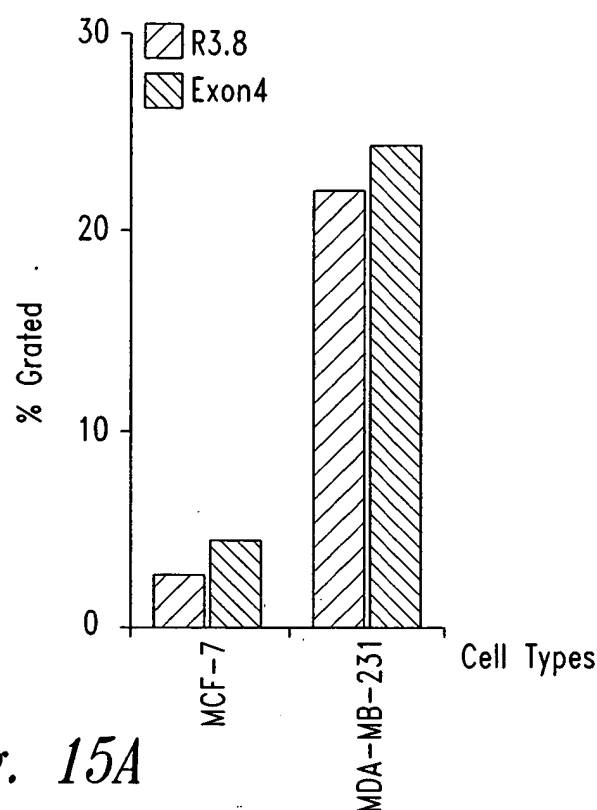
*Fig. 14A*



*Fig. 14B*



*Fig. 14C*



*Fig. 15A*

# RHAMM Peptides

Murine Exon3 sequence:

N-terminal ---KLQATQKDLTESKGKIVQLEGKL--- 23aa

SEQ ID. NO. 14

For Exon3 antibody, used the peptide sequence:

(C) KLQATQKDLTESKG

SEQ ID. NO. 15

Murine Exon4 sequence:

N-terminal ---VSIEKEKIDEKCETEKLLLEYIQEIS--- 25aa

SEQ ID. NO. 16

For Exon4 antibody, used the peptide sequence:

(C) VSIEKEKIDEKC/S

SEQ ID. NO. 17

For antibody to Human RHAMM v5, used the peptide sequence:

(C) LKSKFSENGNQKNL

SEQ ID. NO. 18

Homology between three peptides from murine (M) and human (H) RHAMM (as used to raise antibody)

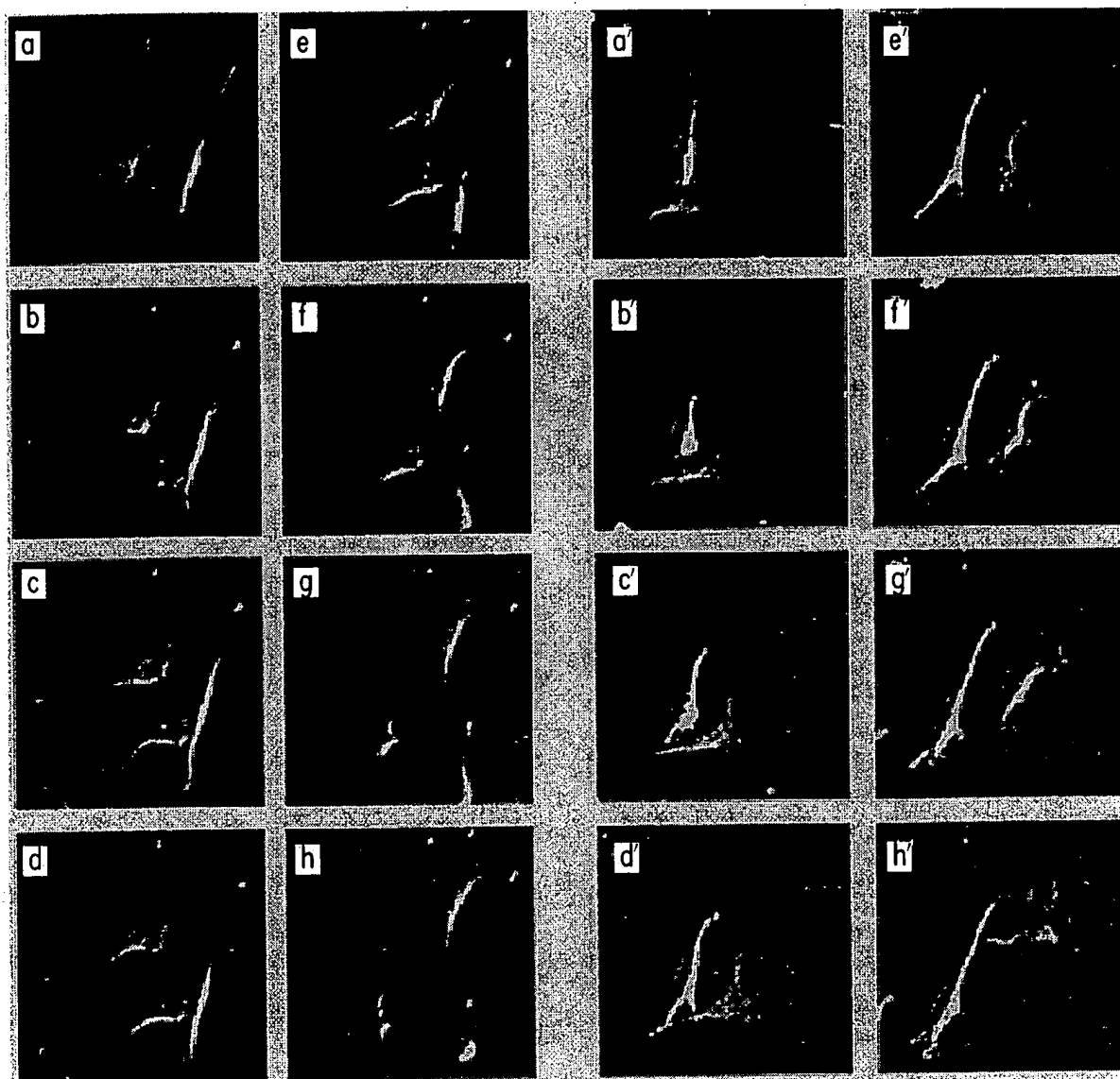
1) Exon3	M:	KLQATQKDLTESKG	as in	SEQ ID. NO. 15
	H:	---V---RS-E-Q---		SEQ ID. NO. 19
2) Exon4	M:	VSIEKEKIDEKC	as in	SEQ ID. NO. 17
	H:	-----S	as in	SEQ ID. NO. 17
3) v5	M:	--A----D-H---M		SEQ ID. NO. 20
	H:	LKSKFSENGNQKNL	as in	SEQ ID. NO. 18

*Fig. 15B*

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peptide 1

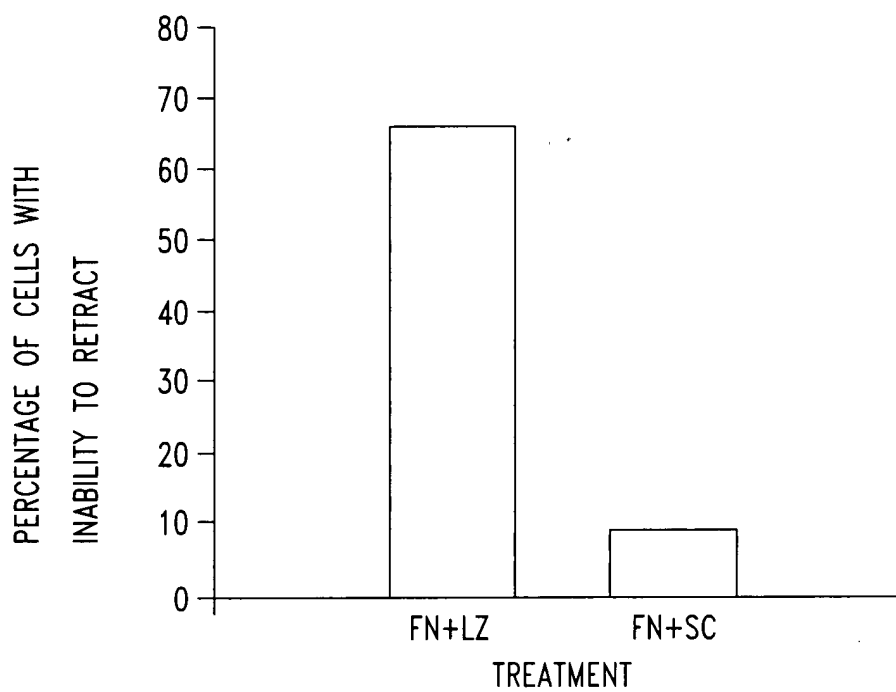
peptide 2



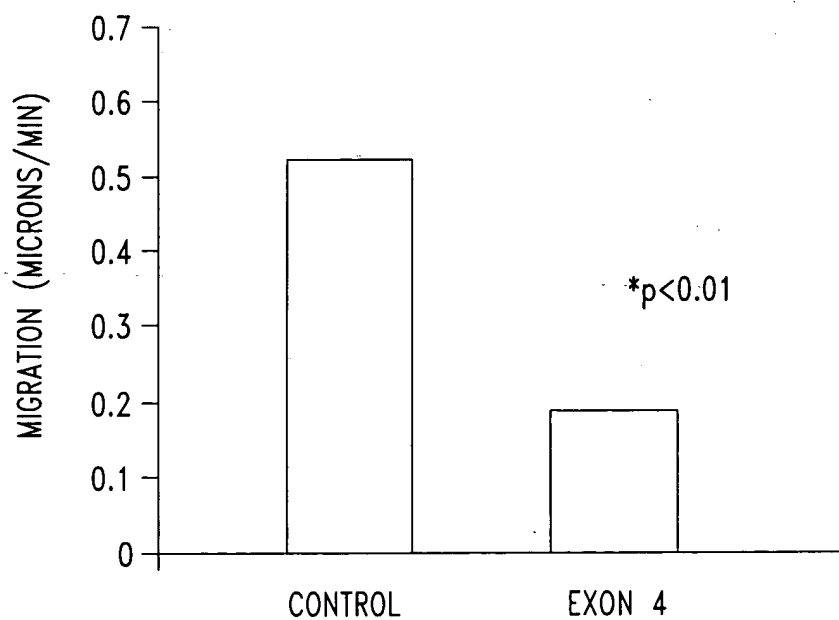
*Fig. 16A*

*Fig. 16B*

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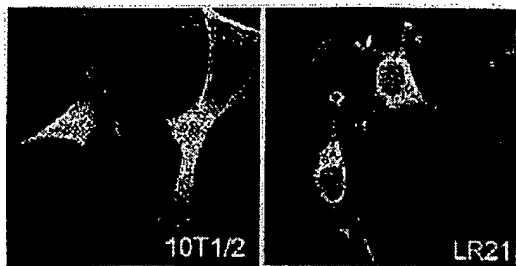


*Fig. 16C*

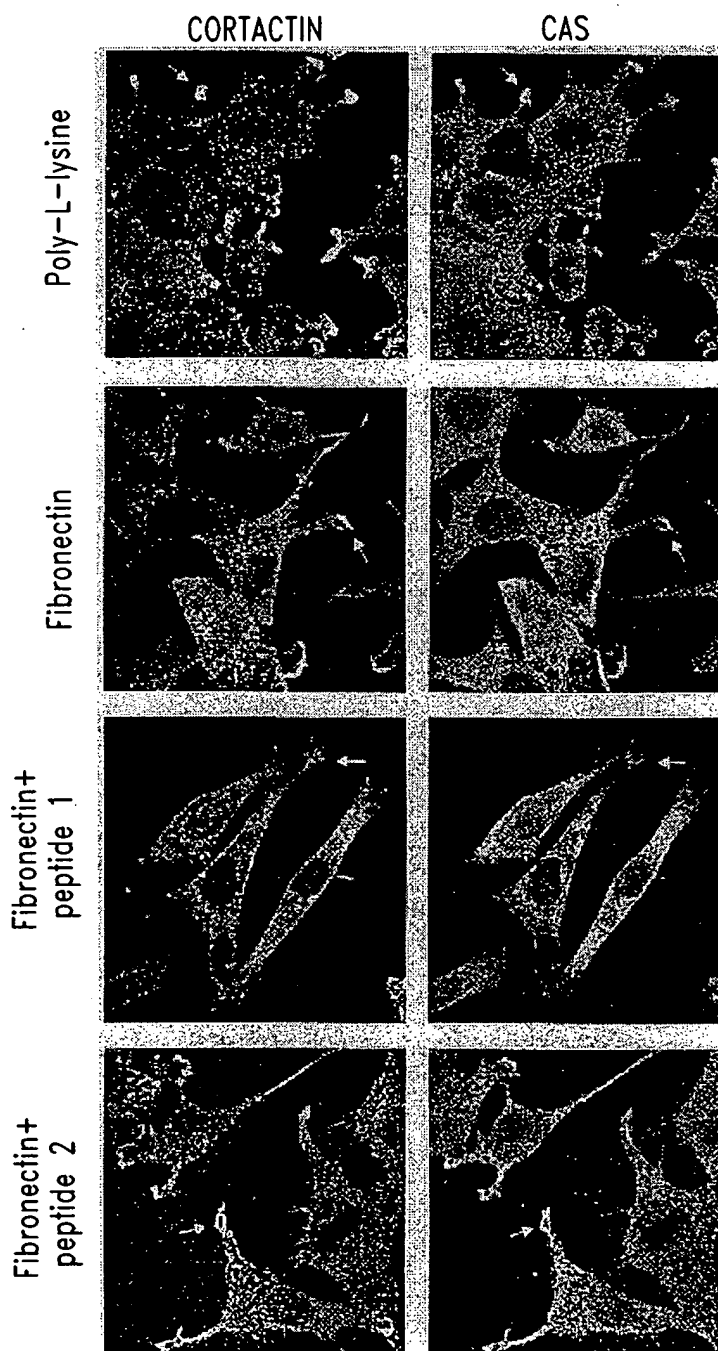


*Fig. 16D*





*Fig. 17A*



*Fig. 17B*

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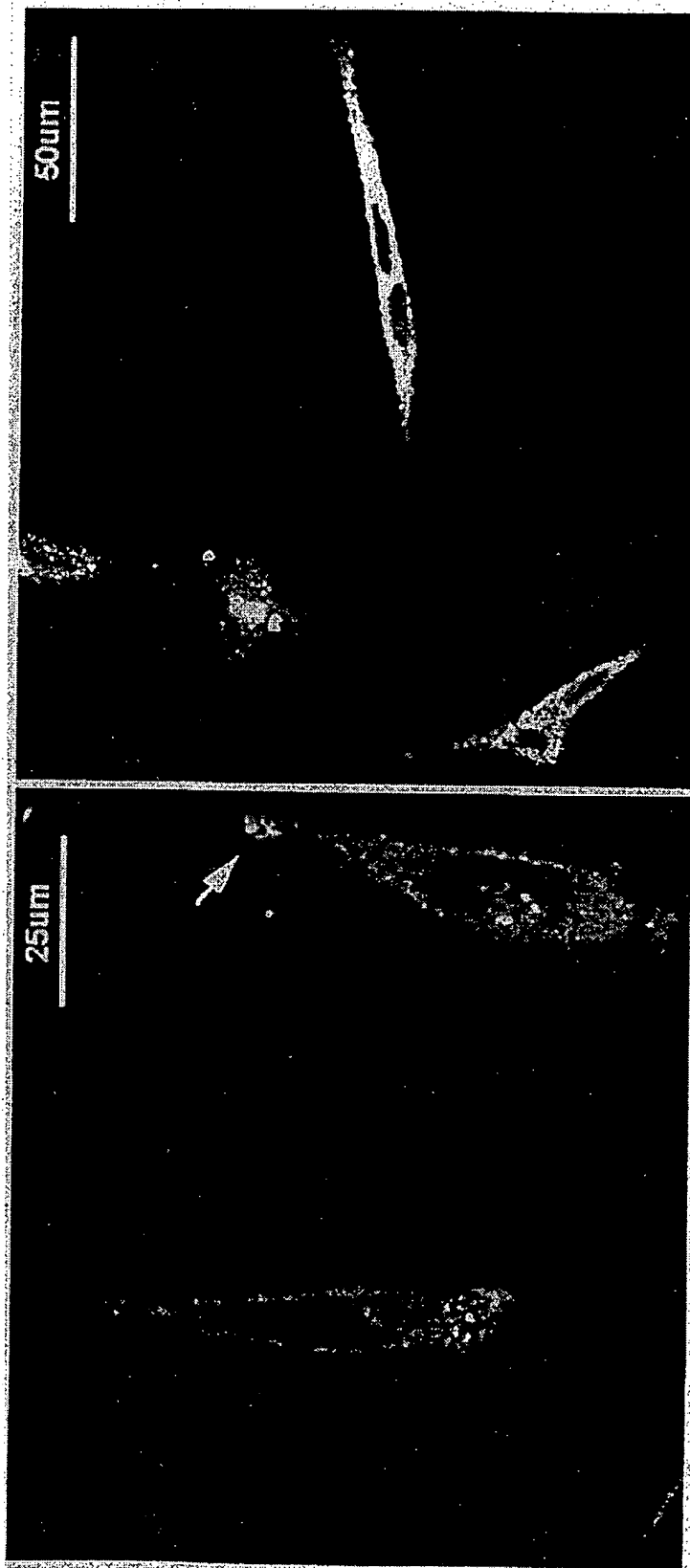
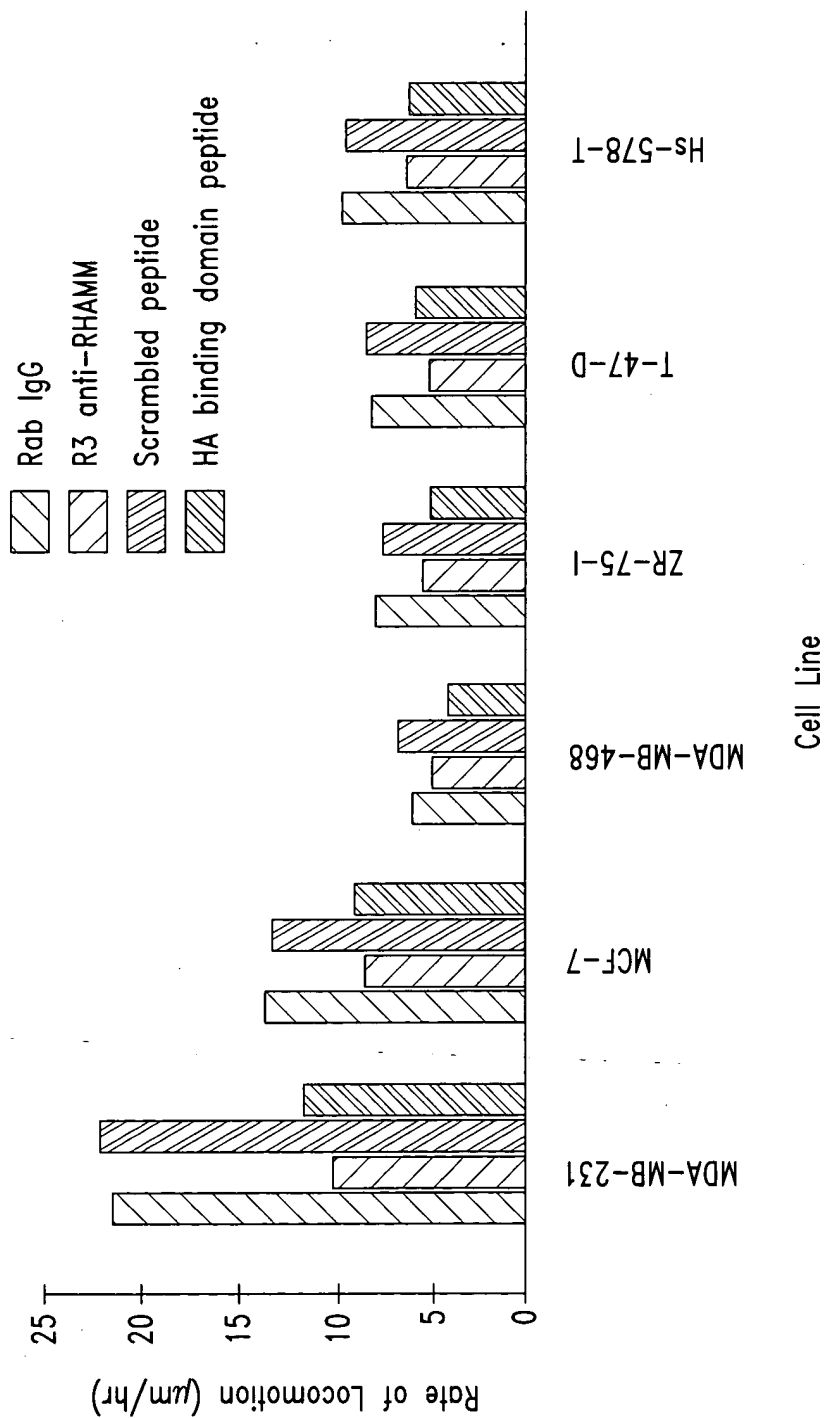
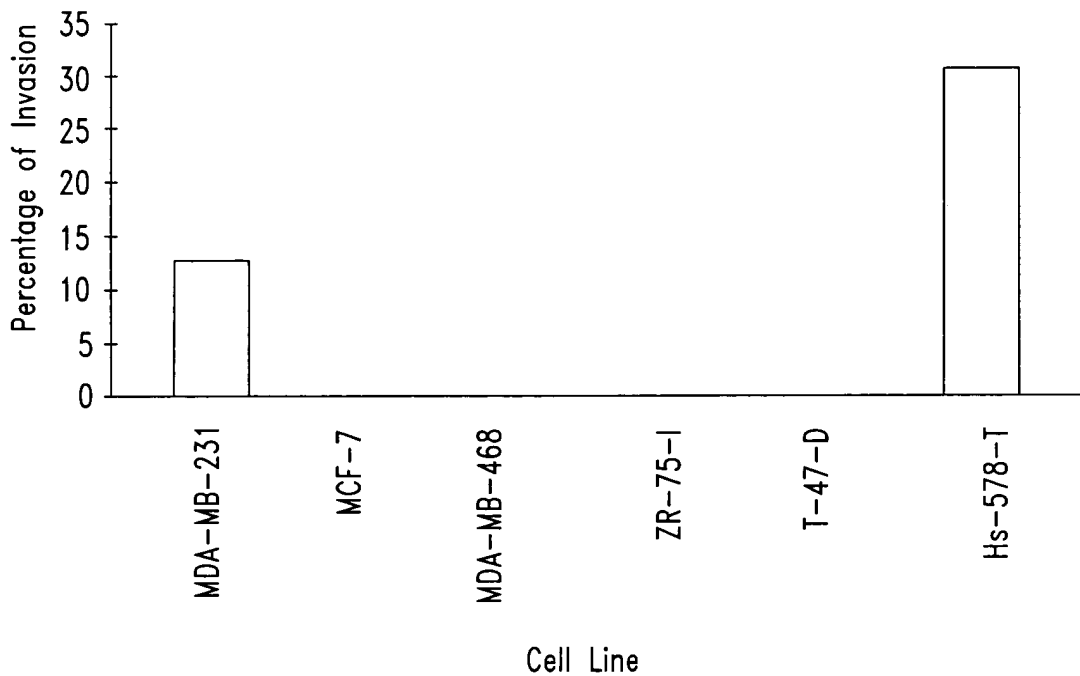


Fig. 18

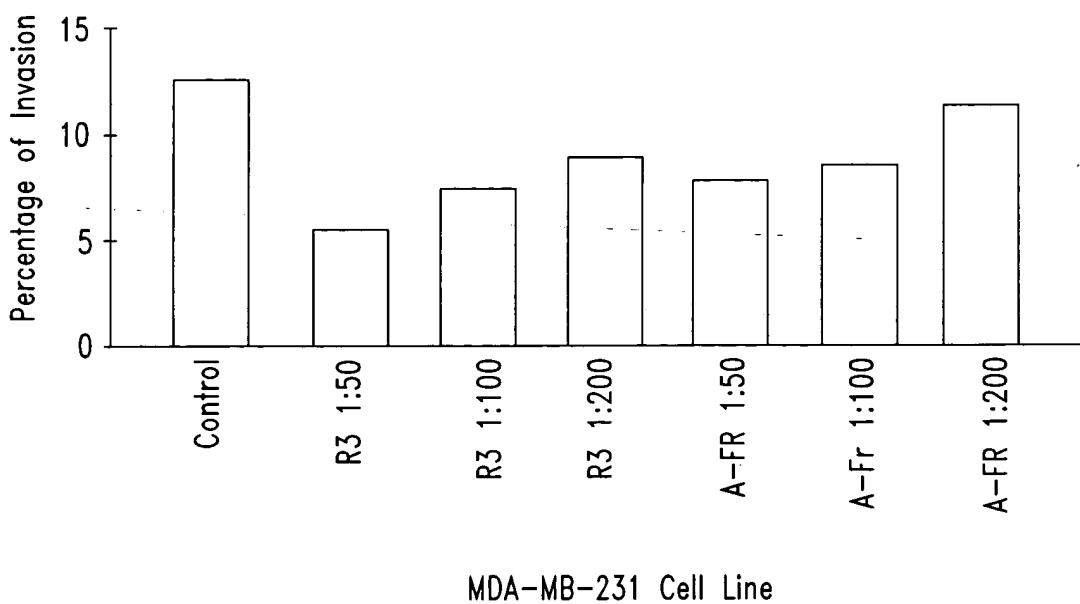
31 AVAILABLE COPY



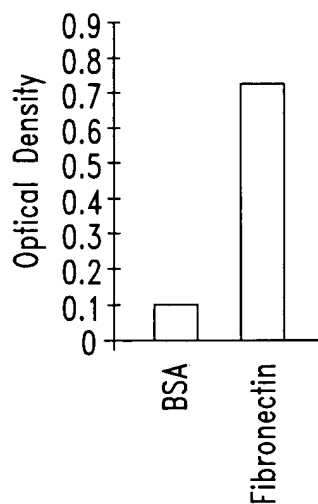
*Fig. 19*



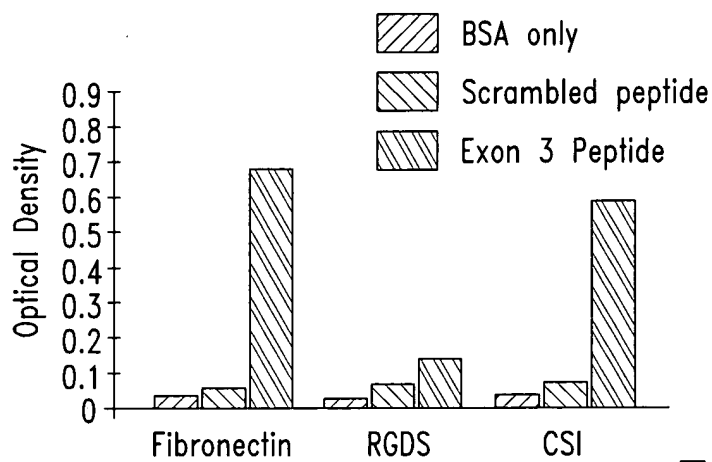
*Fig. 20A*



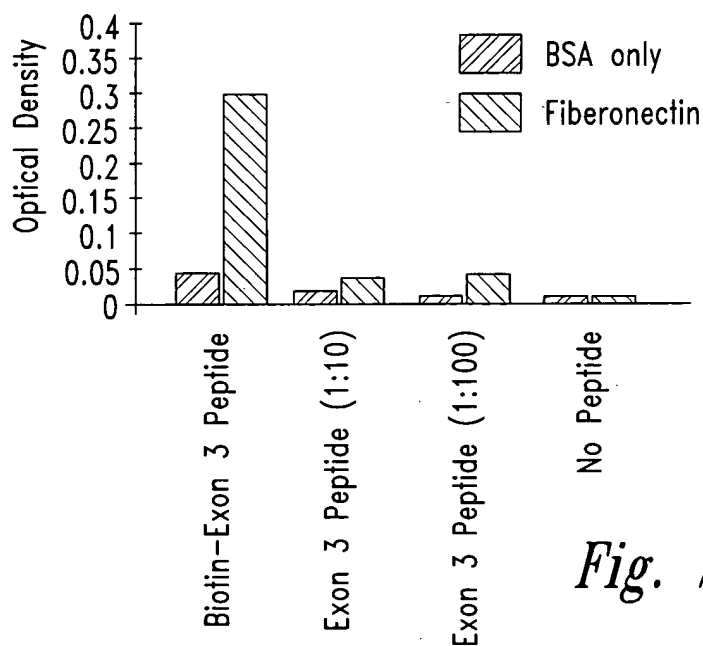
*Fig. 20B*



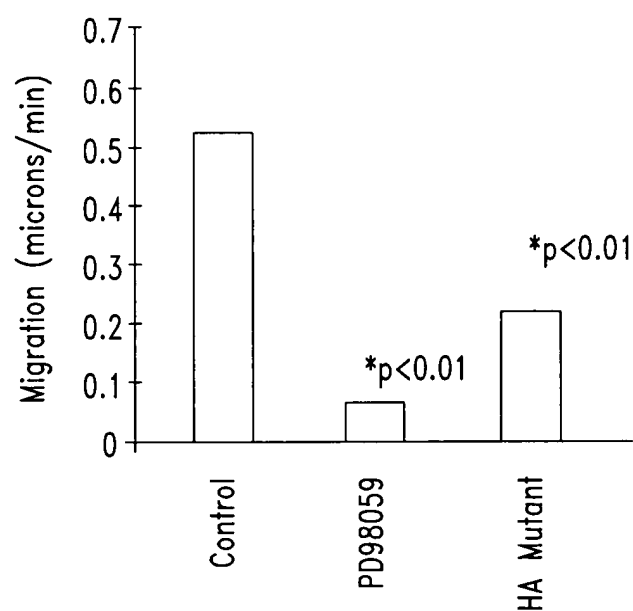
*Fig. 21A*



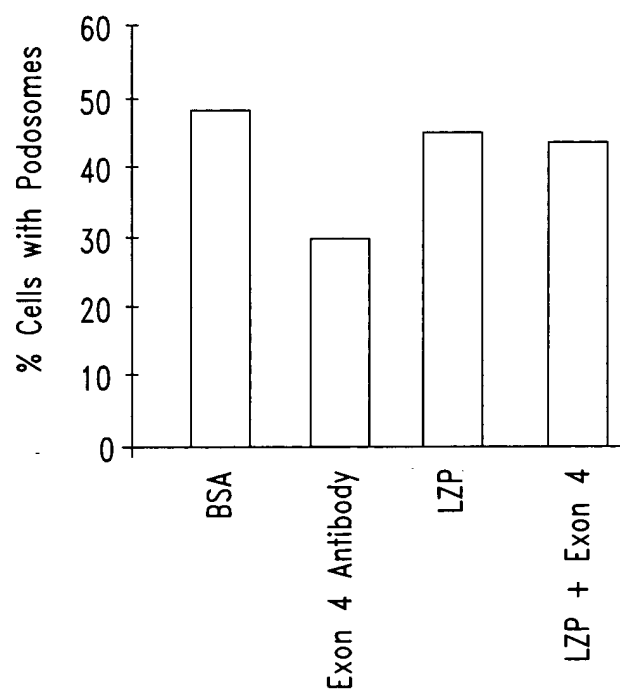
*Fig. 21B*



*Fig. 21C*

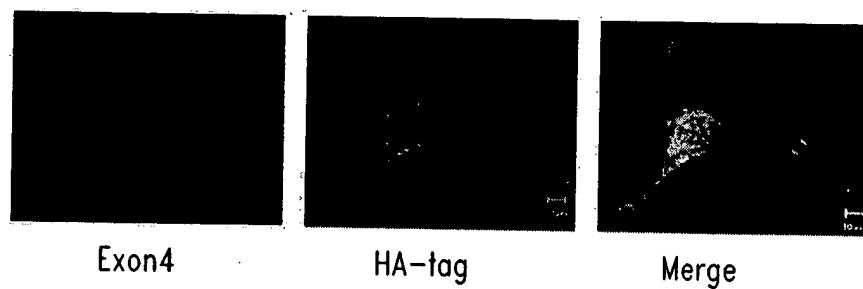


*Fig. 22*

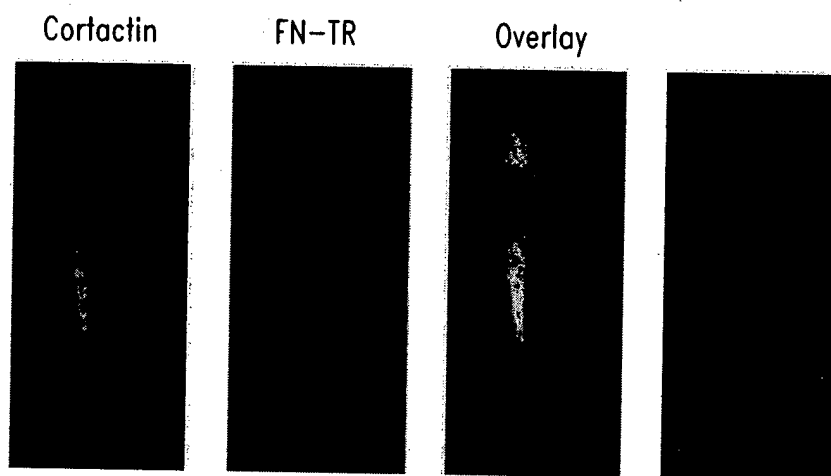


Effects of Exon4 Antibody and LZIP  
on the Podosome Formation of LR21

*Fig. 24A*



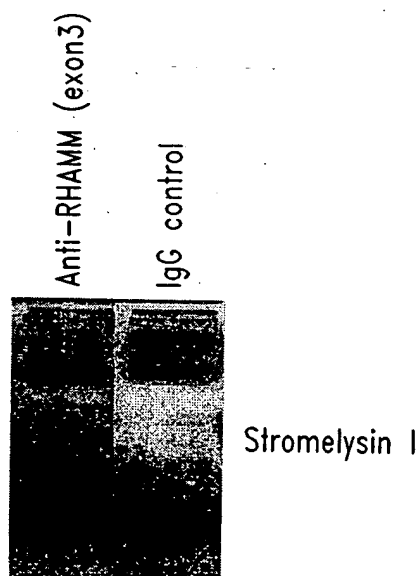
*Fig. 23A*



*Fig. 23B*

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*Fig. 24B*



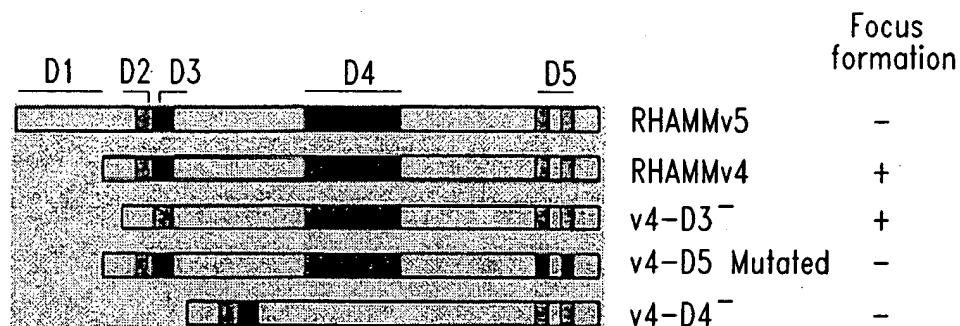


Fig. 25A

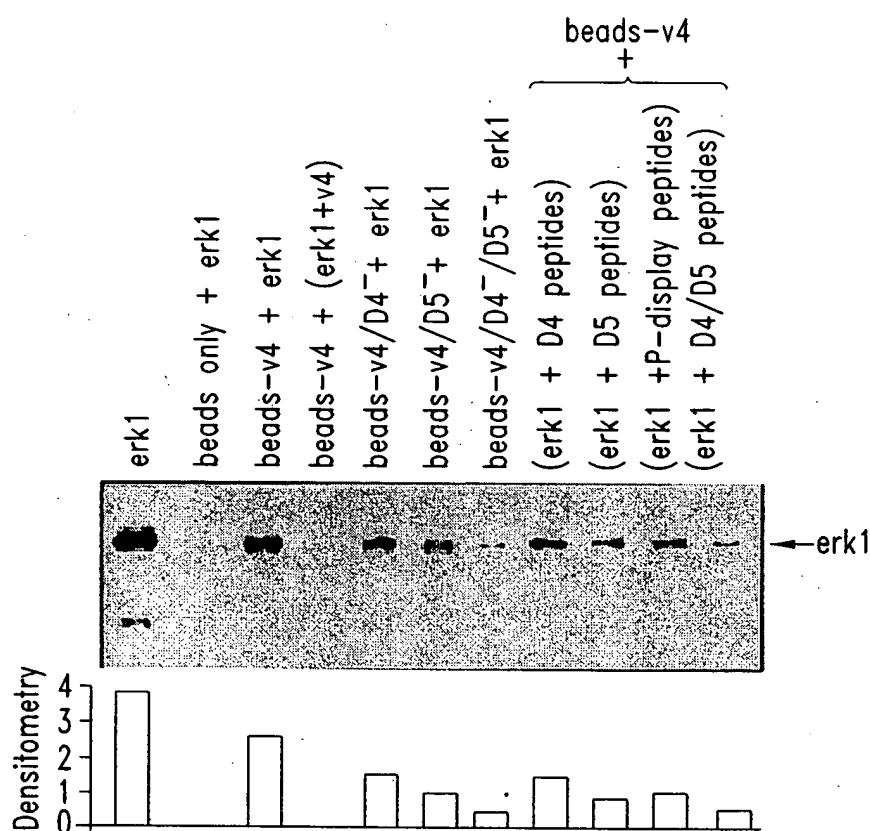
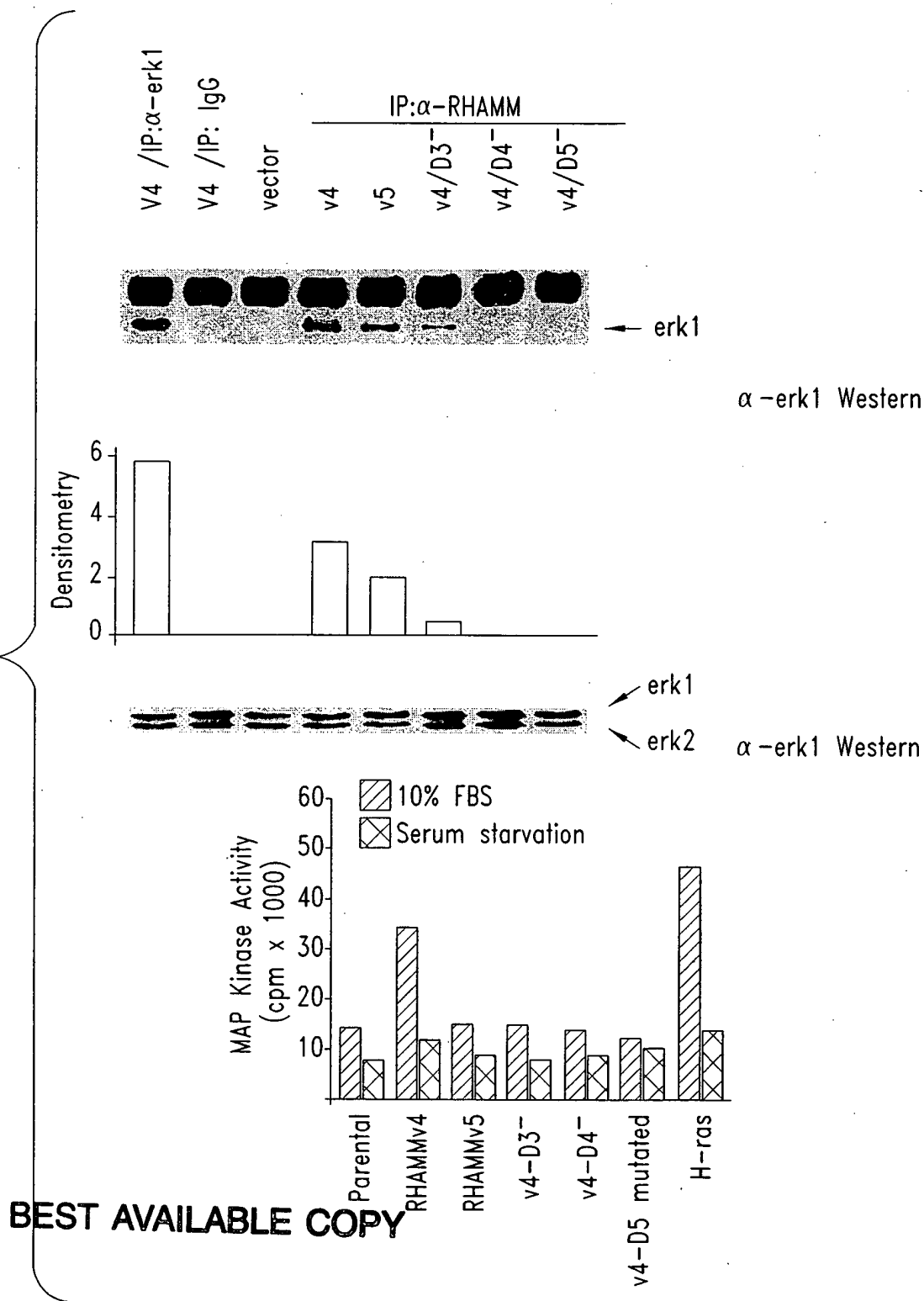


Fig. 25B

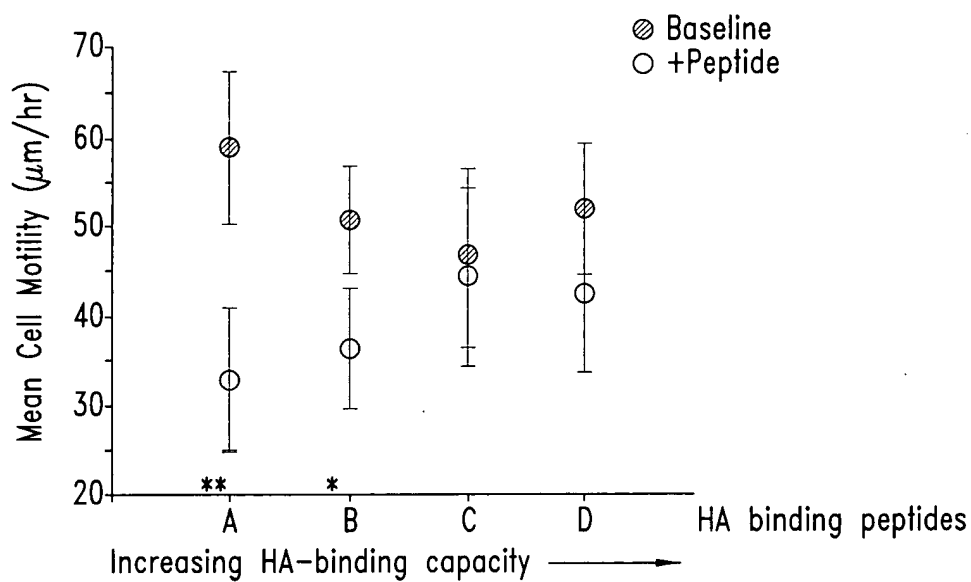




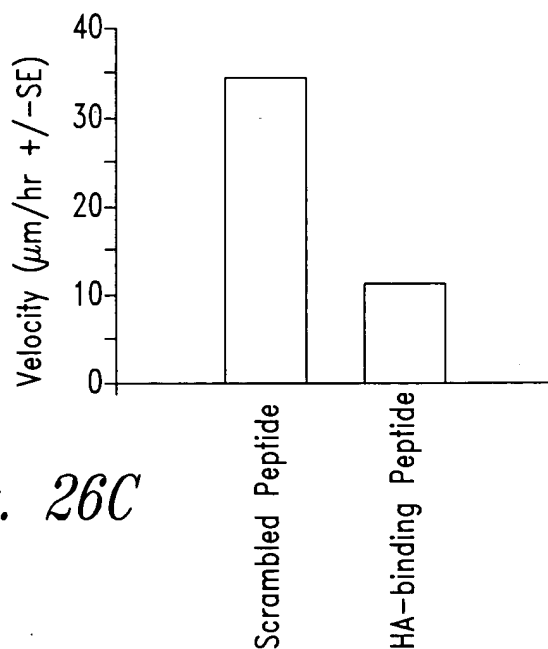
*Fig. 25C*

A: RGGGRGRRR  
 B: RGGRGGR  
 C: RGGRGGR  
 D: RGGGGGGR

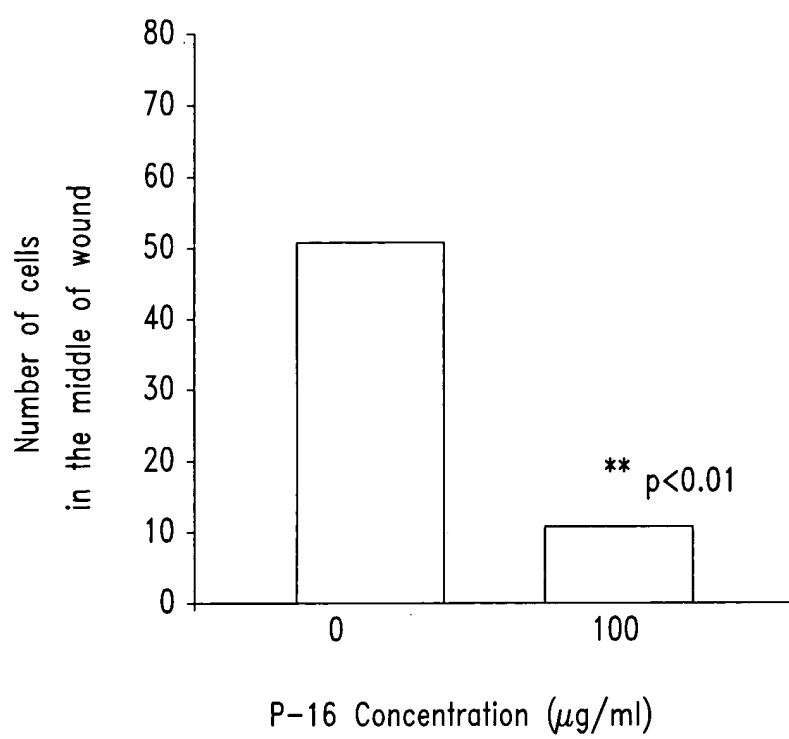
*Fig. 26A*



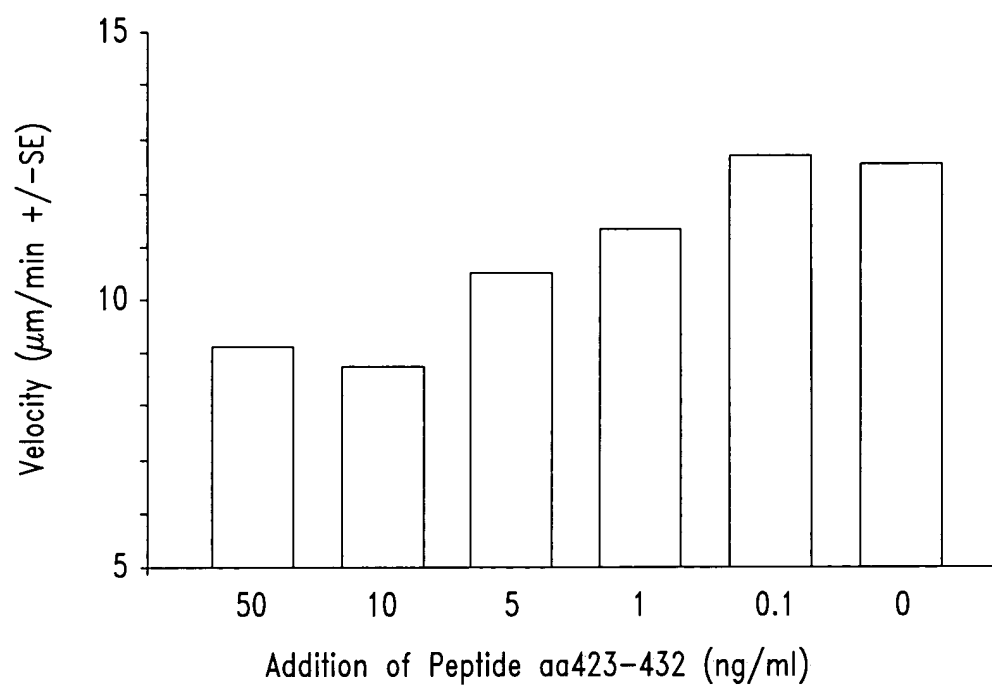
*Fig. 26B*



*Fig. 26C*



*Fig. 27*



*Fig. 28*

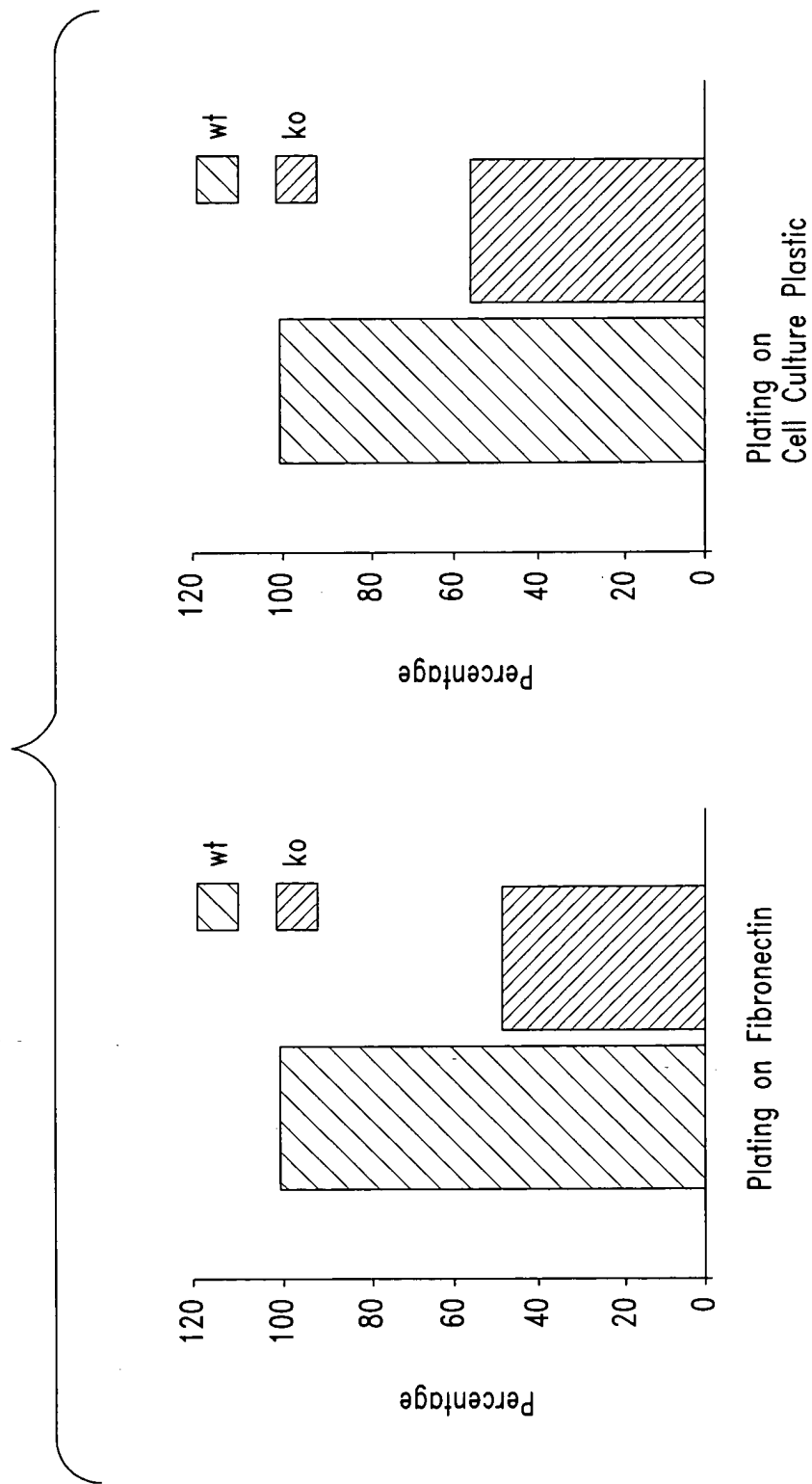


Fig. 29

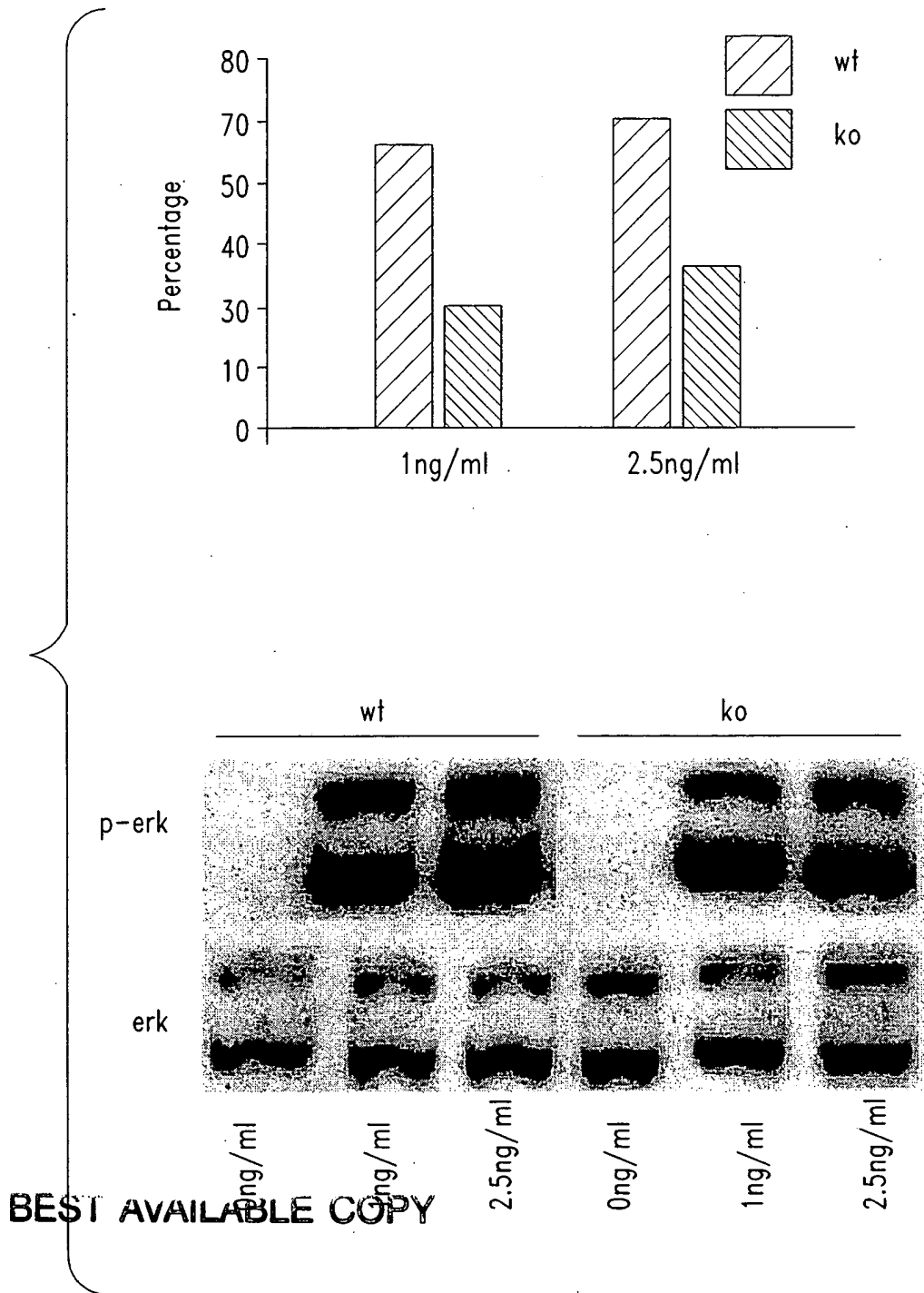
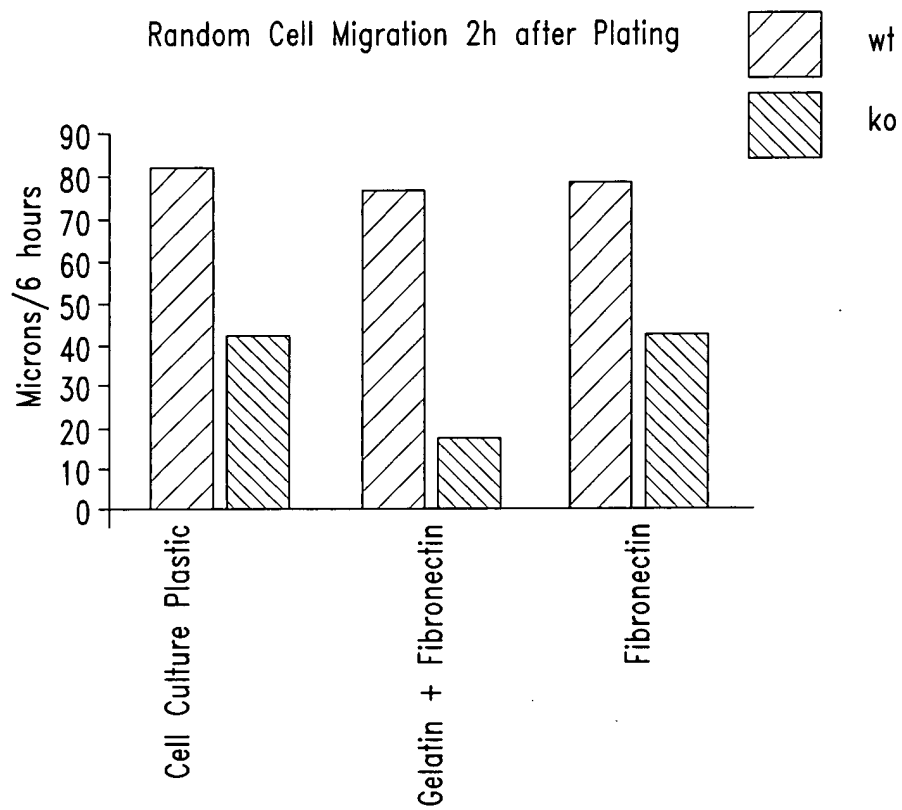


Fig. 30



*Fig. 31*

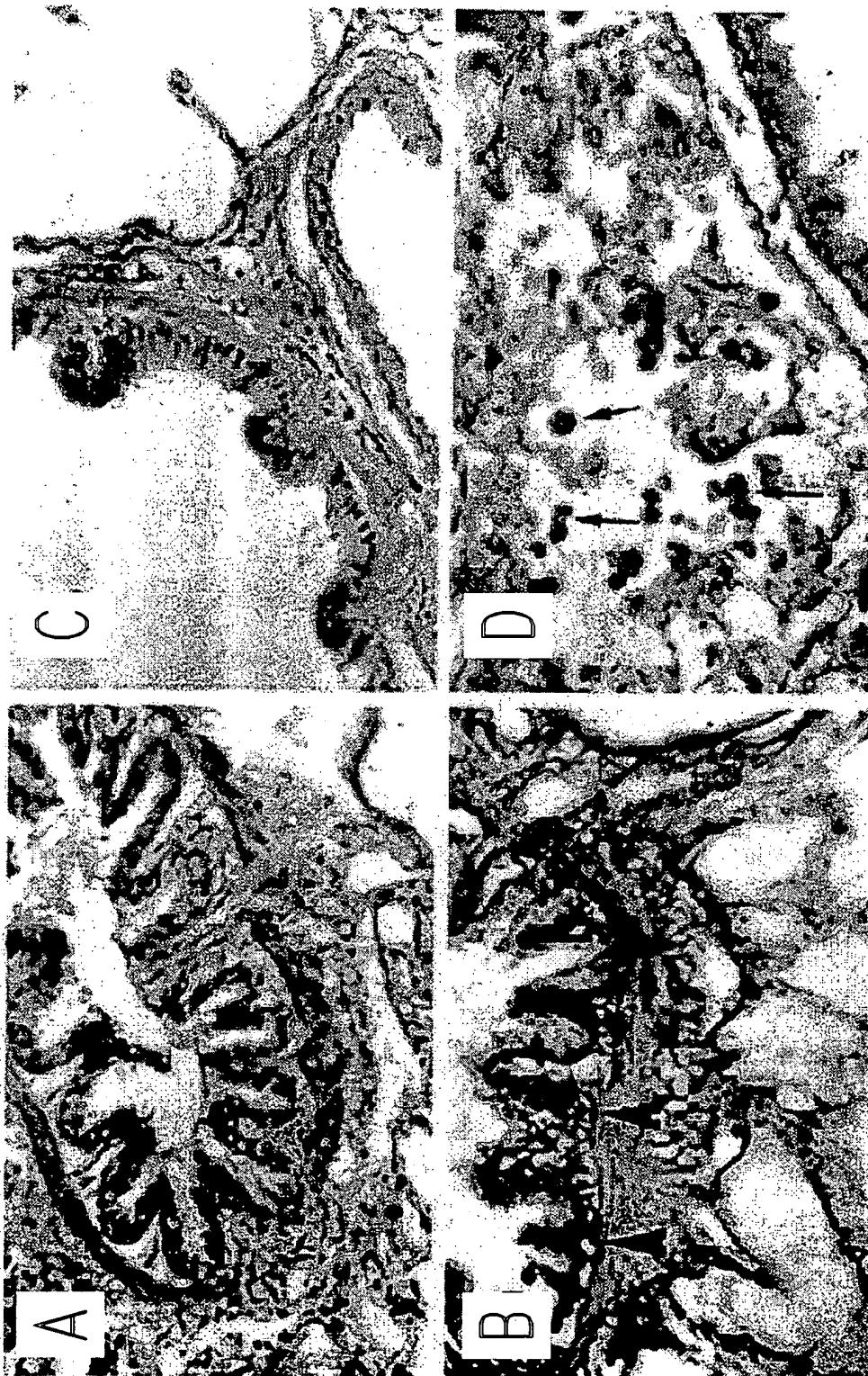
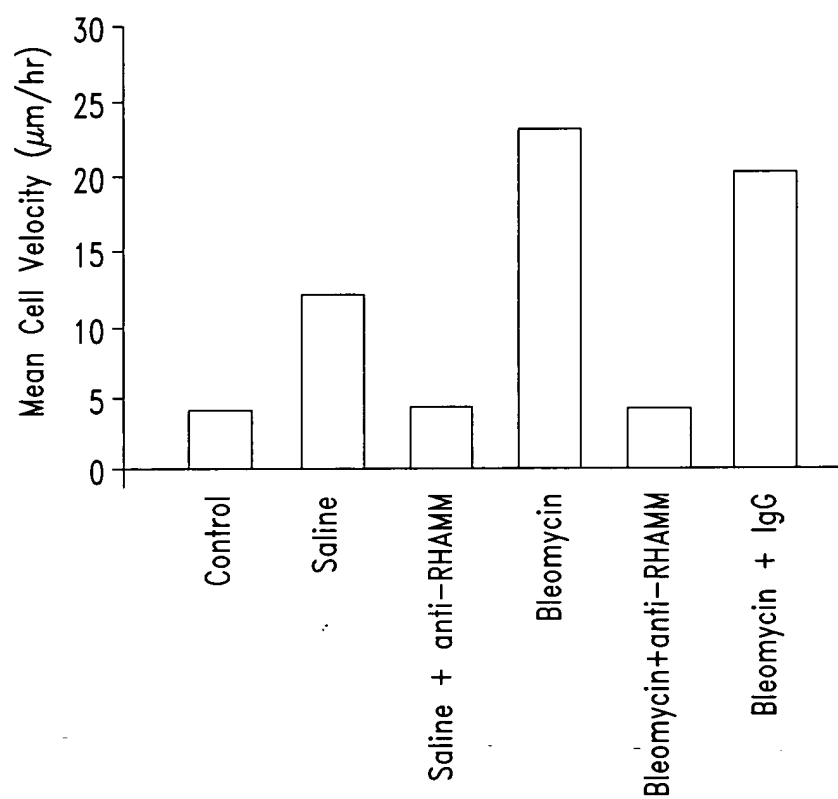
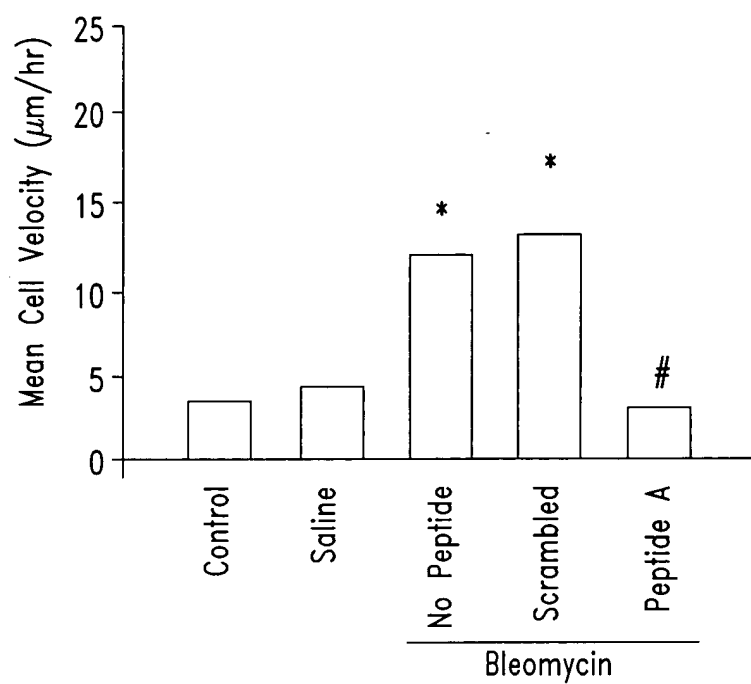


Fig. 32

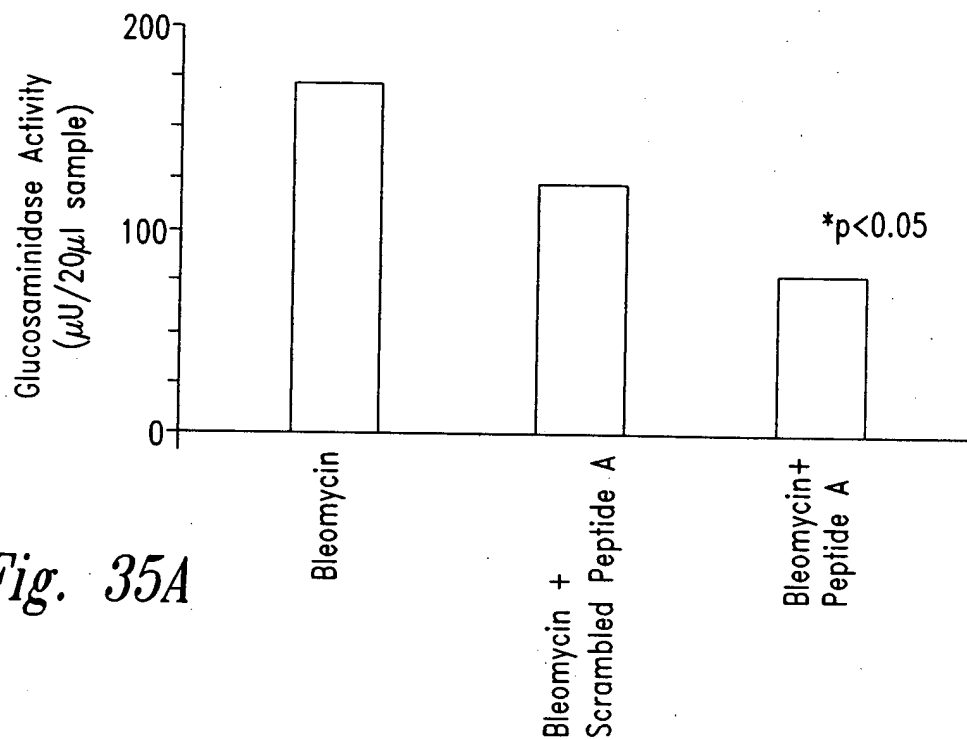




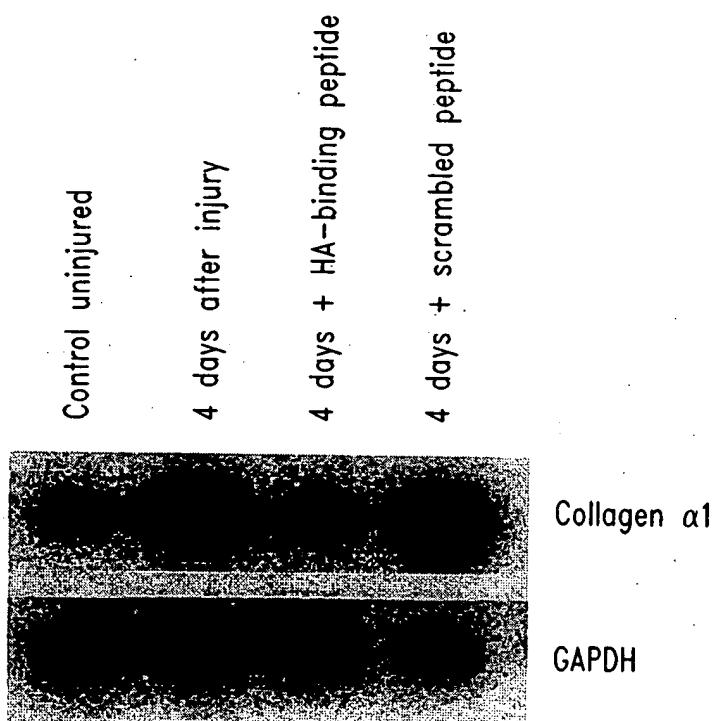
*Fig. 33*



*Fig. 34*



*Fig. 35A*



*Fig. 35B*

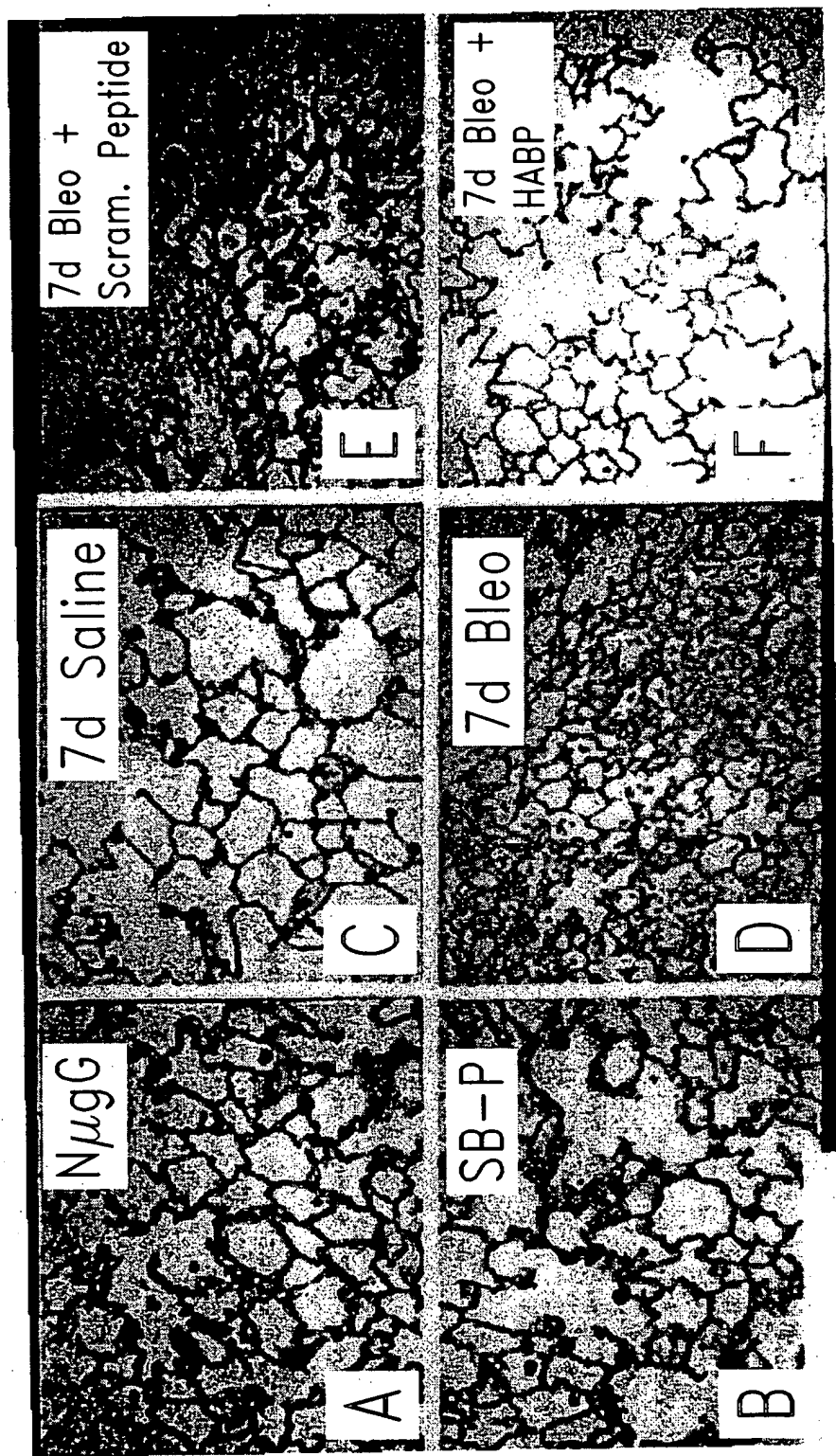


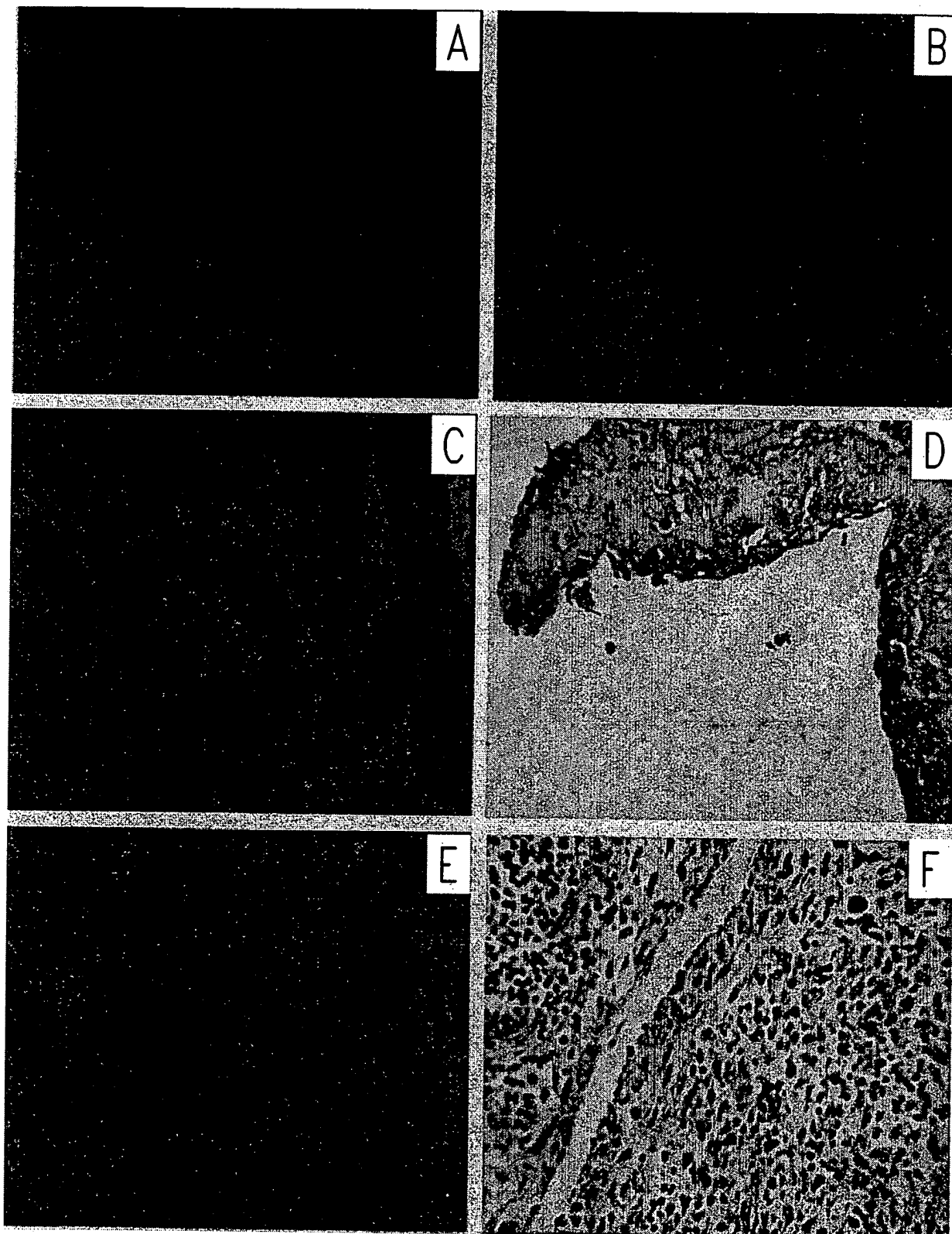
Fig. 36

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Patient	% of total X4+ cells	% of total V5+ cells	Neutrophils			Monocytes/macrophages			T cells		
			% of total cells	% of X4+ cells	% of V5+ cells	% of total cells	% of X4+ cells	% of V5+ cells	% of total cells	% of X4+ cells	% of V5+ cells
W.H.	ND	50.7	70.5	81.2	ND	21.8	87.1	66.4	6.7	11.7	13.0
M.T.	74.6	20.7	80.7	ND	9.9	11.2	89.6	ND	9.0	<2.0	ND
L.S.	43.9	34.4	ND	ND	ND	8.5	ND	53.8	20.4	5.3	<2.0
S.M.	67.6	4.0	67.3	80.9	ND	ND	ND	ND	3.0	10.0	<2.0
M.M.	19.2	19.6	25.2	68.3	ND	ND	ND	ND	2.7	4.5	8.0
D.D.	35.7	31.2	40.7	99.3	ND	ND	ND	ND	6.9	<2.0	9.9
P.B. (r)	77.4	71.8	ND	ND	ND	9.2	99.8	88.3	4.4	13.0	33.2
P.B. (l)	85.0	82.3	ND	ND	ND	12.8	99.4	58.3	3.4	11.0	30.2
S.L.	51.6	45.5	61.7	92.1	77.2	8.8	73.4	85.6	24.0	6.0	9.0
R.C.	10.6	6.7	54.1	63.8	13.8	5.6	50.3	43.9	6.3	8.5	11.9
N.N.	27.9	10.3	44.1	54.6	21.4	3.5	77.1	49.4	6.8	33.1	22.2
M.G.	85.48	84.63	86.7	99.6	99.5	5.52	98.7	98.9	6.36	4.8	7.6

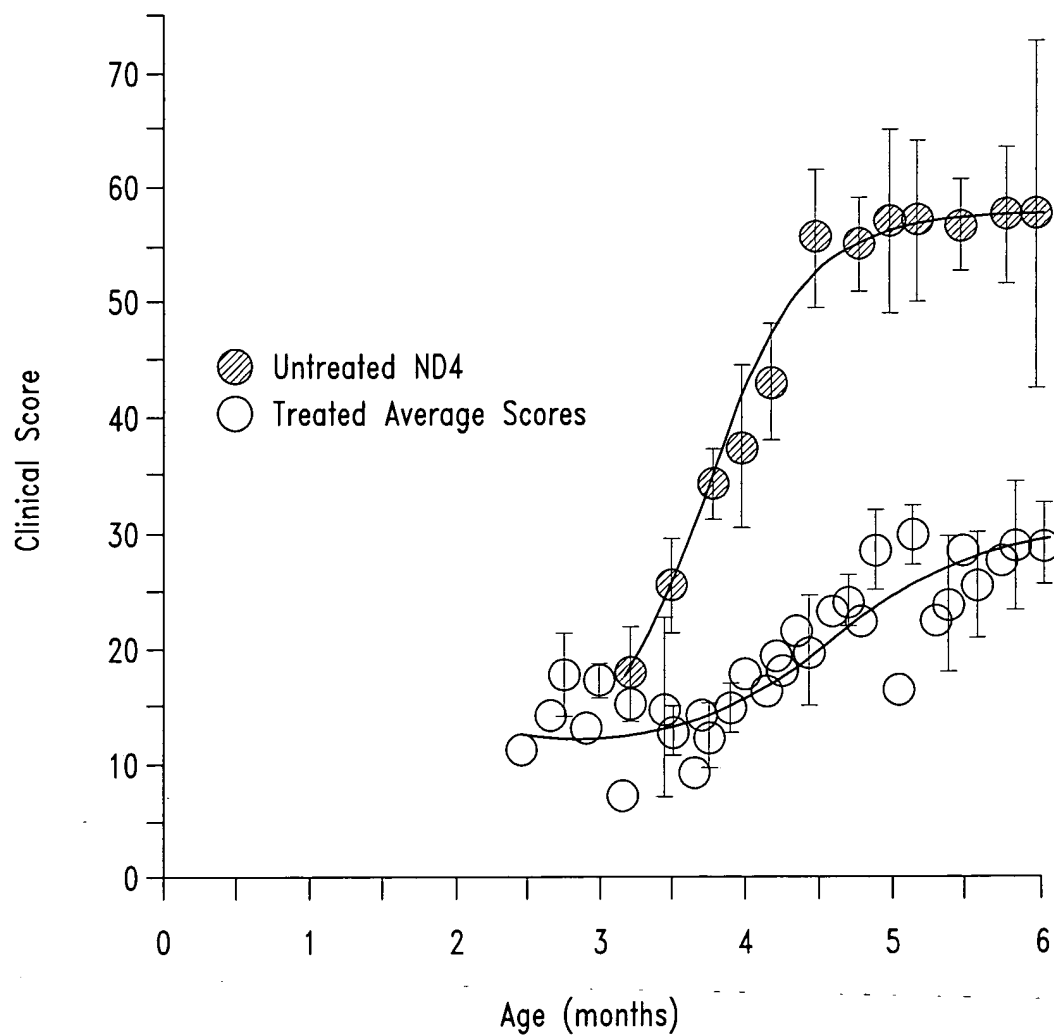
- ND - non-determined
- (r) - right knee
- (l) - left knee

Fig. 37

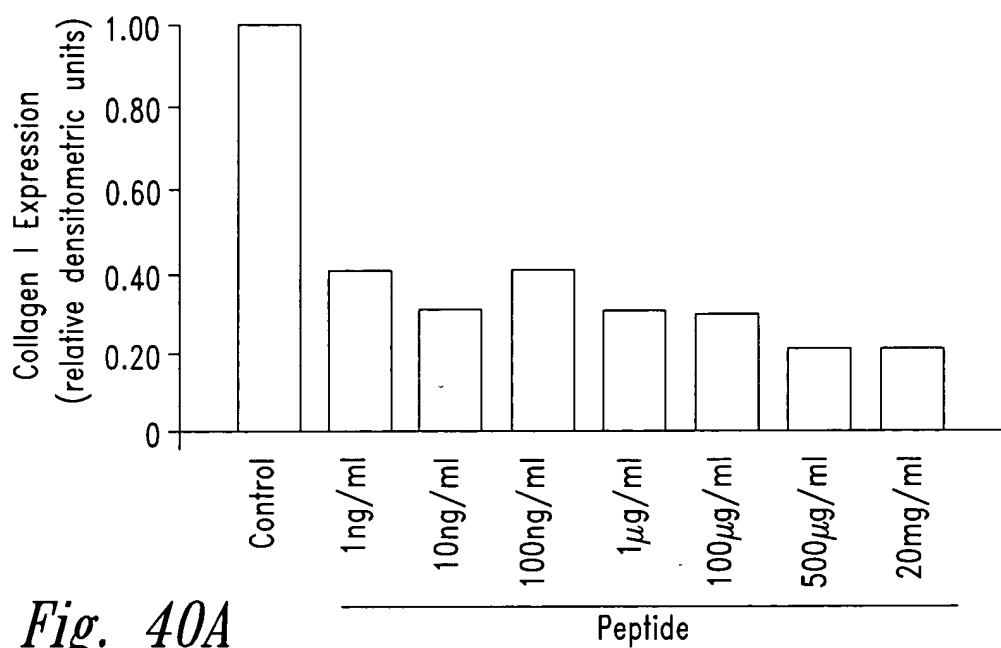


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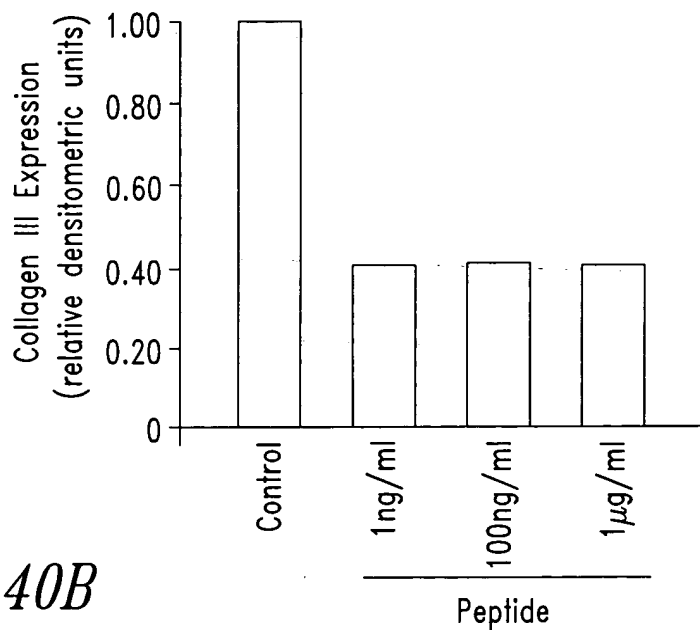
Fig. 38



*Fig. 39*

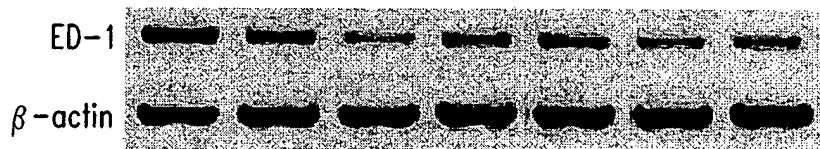
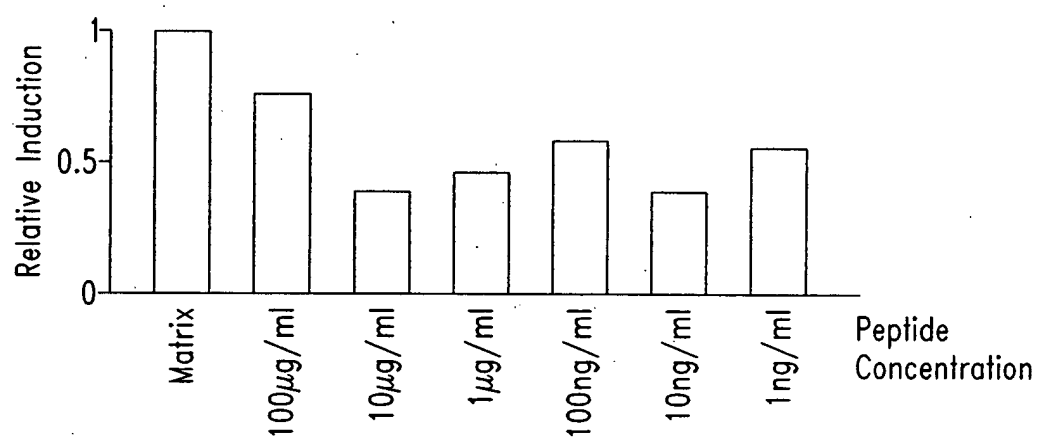


*Fig. 40A*

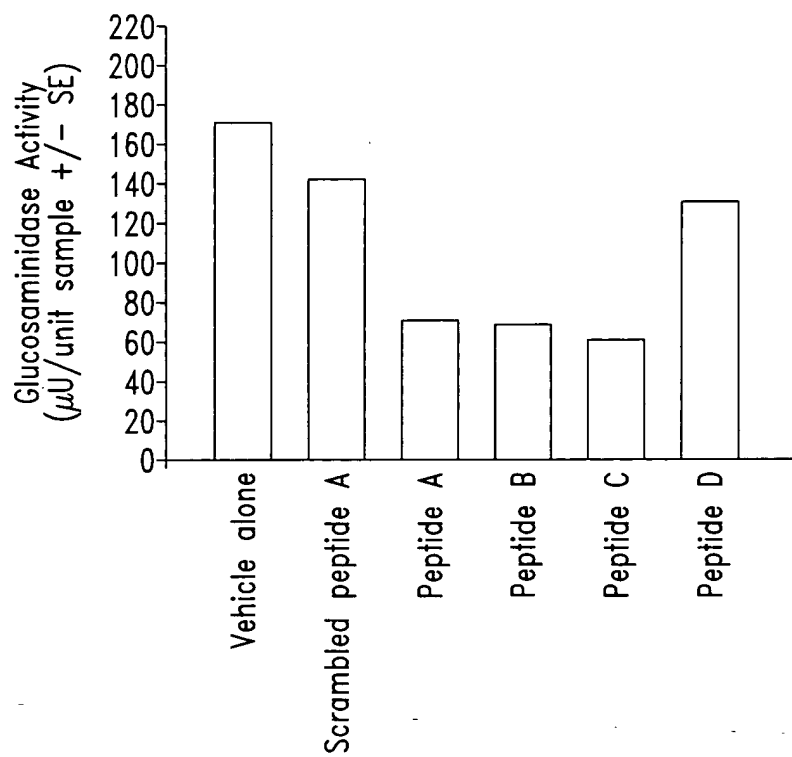


*Fig. 40B*

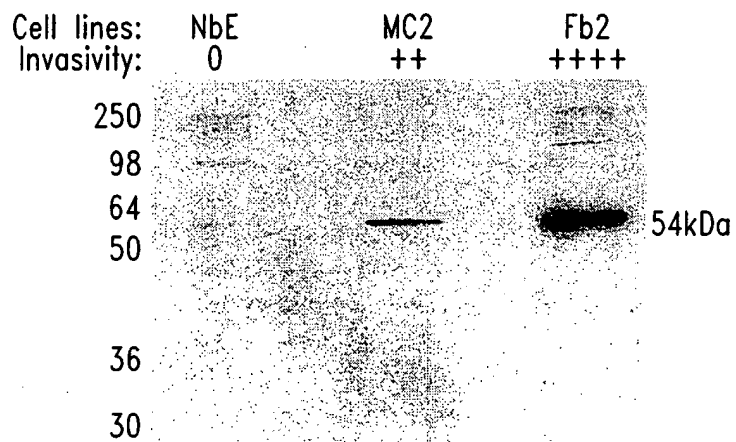




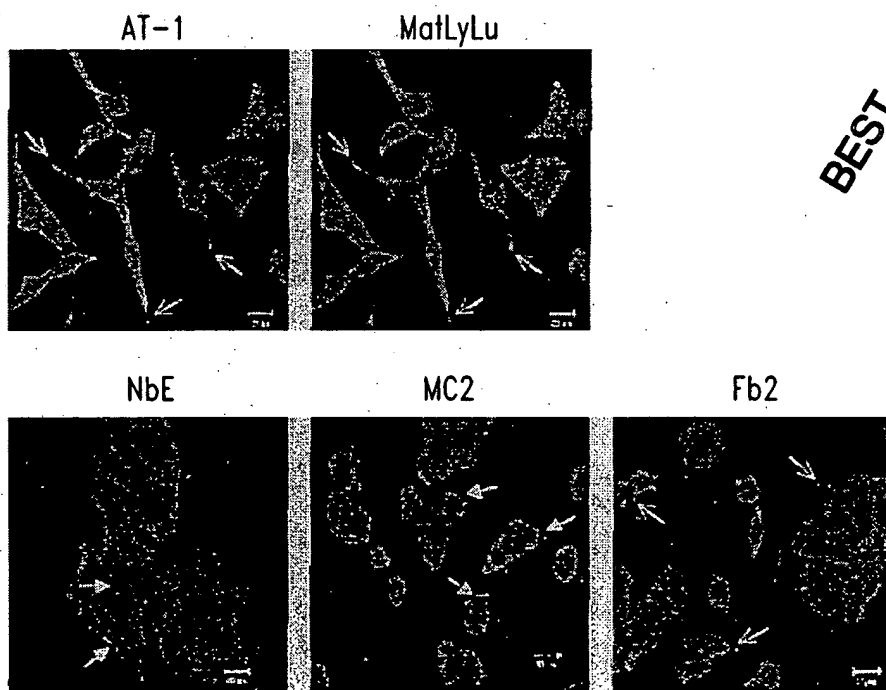
*Fig. 41*



*Fig. 42*



*Fig. 43A*



*Fig. 43B*

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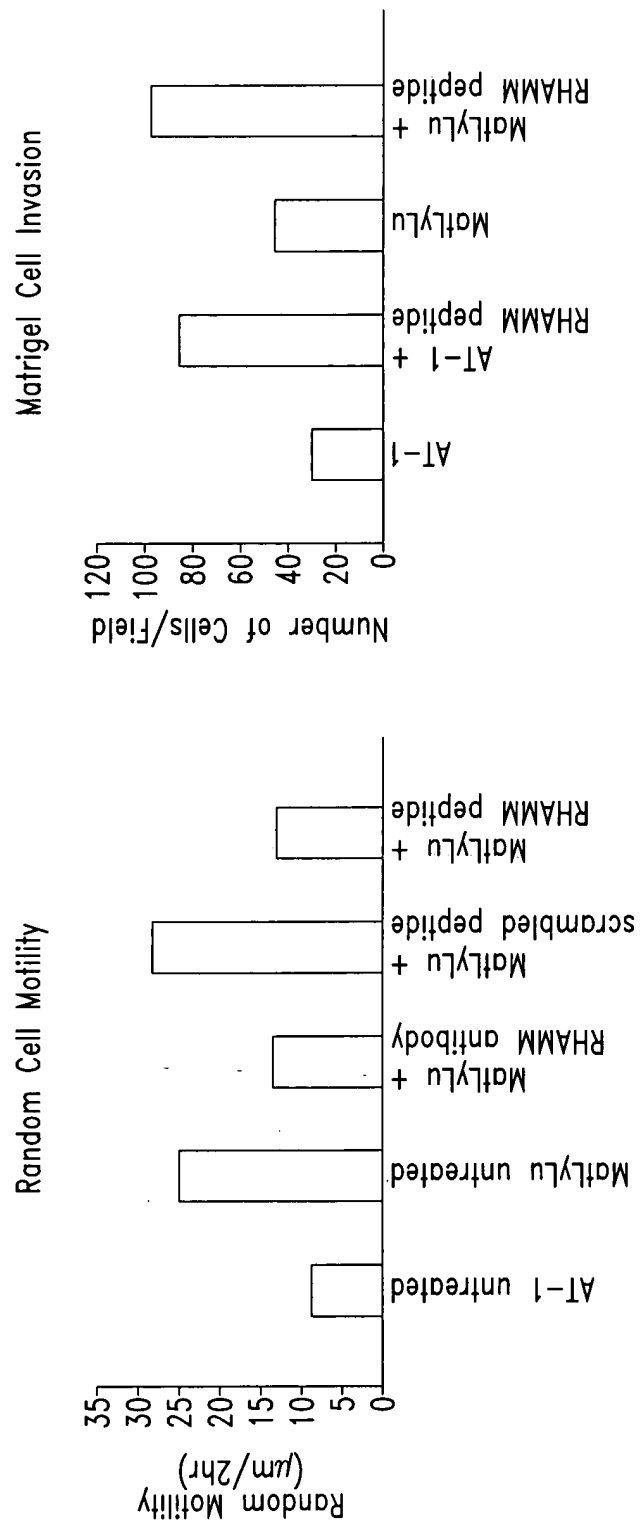
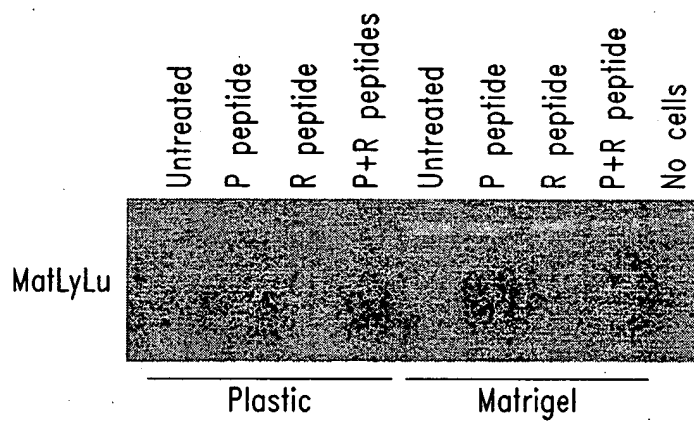


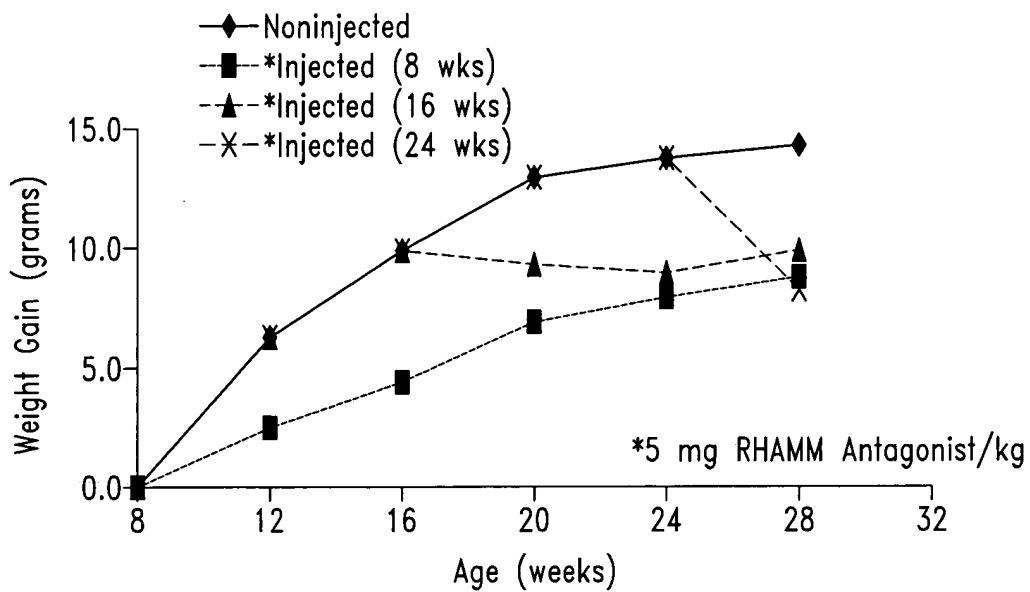
Fig. 44A



*Fig. 44B*

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NZB/W Mice (N=10/group)



Note: This effect is not being seen with NOD mice

*Fig. 45*

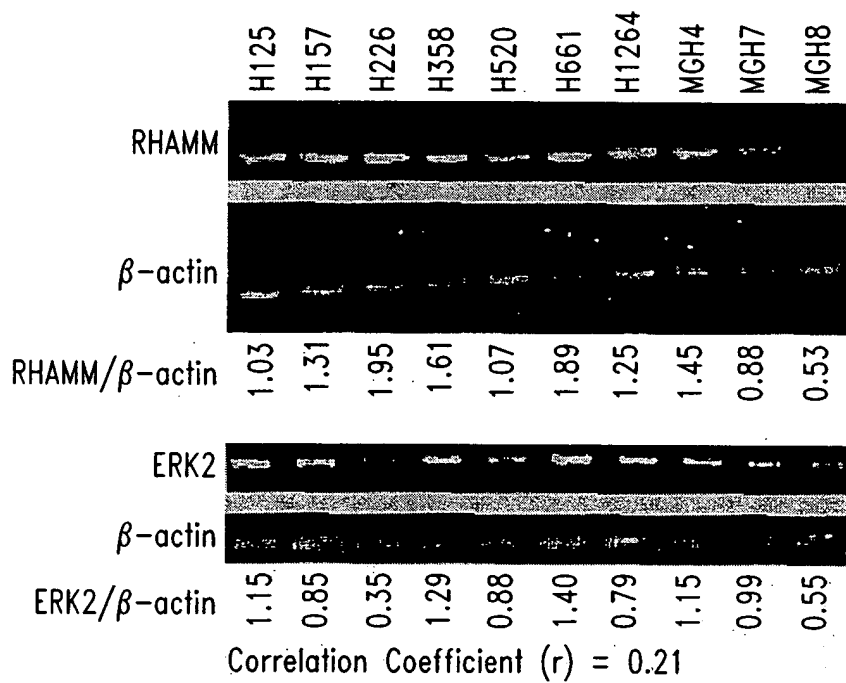


Fig. 46A

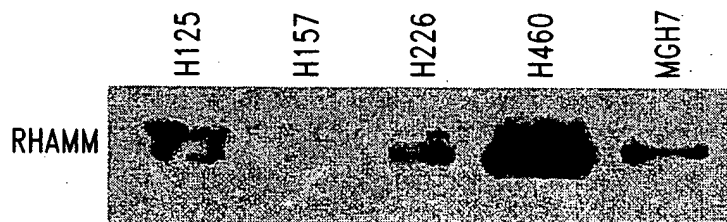


Fig. 46B

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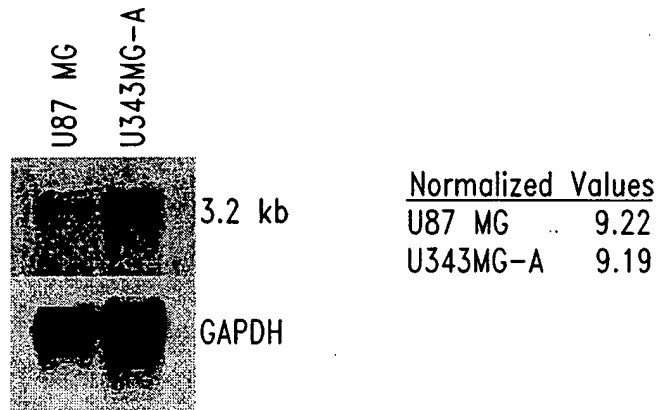


Fig. 47A

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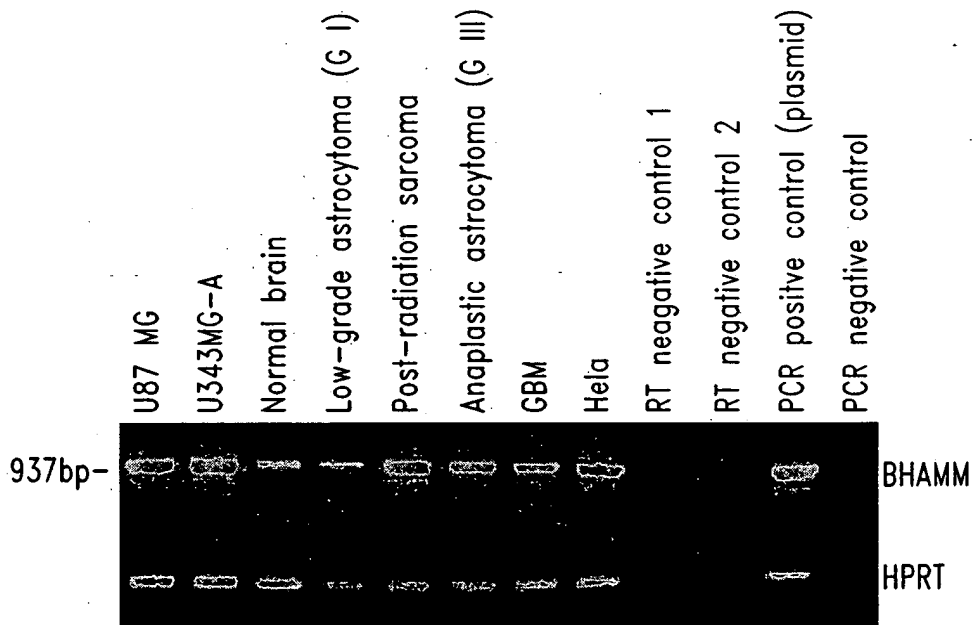
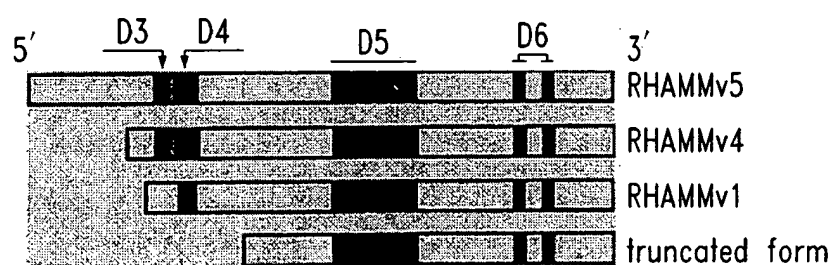


Fig. 47B

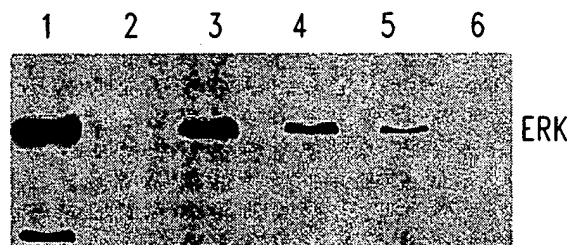


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*Fig. 48A*

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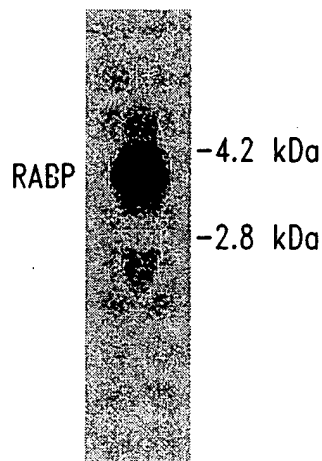


*Fig. 48B*

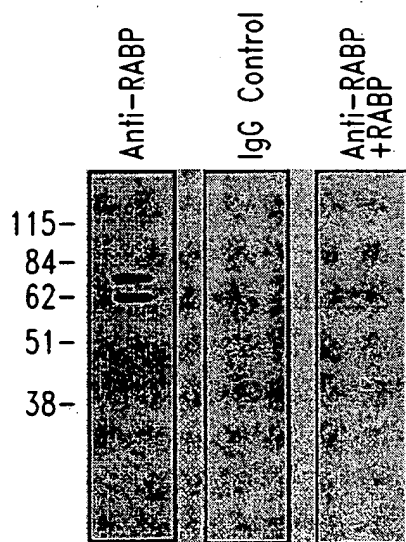
RHAMM binding protein cDNA (RABP) (partial)

GAA TTC GCG GCG GCG TCG ACC AAC AAG CCC CCT GCT GTT TCC CCG GGG  
 E F A A A S T N K P P A V S P G  
 GTG GTC TCC CCA ACC TTT GAA CTT ACA AAT CTT CTA AAT CAT CCT GAC  
 V V S P T F E L T N L L N H P D  
 CAT TAT GTA GAA ACA GAG AAC ATT CAG CAT CTC ACA GAC CCG GCT CTA  
 H Y V E I E N I Q H L T D P A L  
 GCA CAT GTG GAT AGA ATA AGC GAA GCC CGG AAA CTG AGT ATG GGA TCT  
 A H V D R I S Q A R K L S M G S  
 GAT GAT GCT GCC TAC ACA CAA GCT CTG CTG GTG CAC CAG AAG GCC AGG  
 D D A A Y T Q A L L V H Q K A R  
 ATG GAA CGG CTT CAA AGA GAG CTC GAG ATG CAA AAG AAA AAG CTG GAT  
 M E R L Q R E L E M Q K K K L D  
 AAA CTC AAA TCT GAG GTC AAT GAG ATG GAA AAT AAT CTA ACT CGA AGG  
 K L K S E V N E M E N N L T R R  
 CGC CTG AAG AGA TCA AAT TCC ATT TCC CAG ATA CCG TCA CTC GAA GAA  
 R L K R S N S I S Q I P S L E E  
 ATG CAG CAG TTG AGA AGT TGT AAT AGA CAA CTC CAG ATT GAC ATT GAC  
 M Q Q L R S C N R Q L Q I D I D  
 TTT GAC TGC TTA ACC AAA GAA ATT GCA TCT TTT TCA AGC CCG AGG ACC  
 F D C L T K E I A S F S S P R T  
 ACA TTT TAA CCC CAG CGC TAT TCA TAA CTT TTA TGA CAA TAT TGG ATT  
 T F \*  
 TGT AGG CCC TGT GCC ACC AAA ACC CAA AGA TCA AAG GTC CAC CAT CAA  
 AGG TCG ACG CGG

*Fig. 49A*

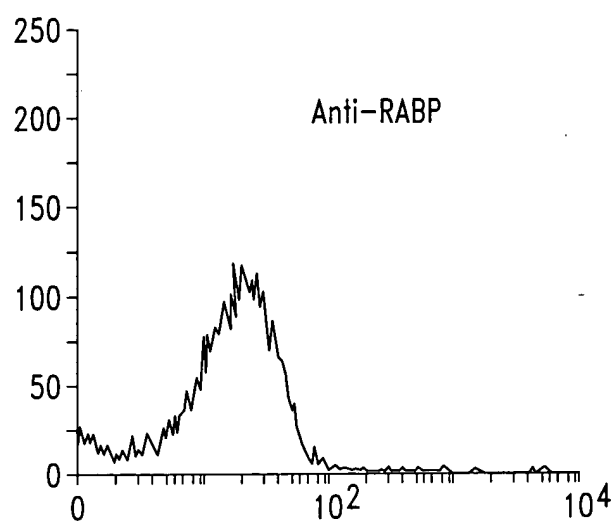
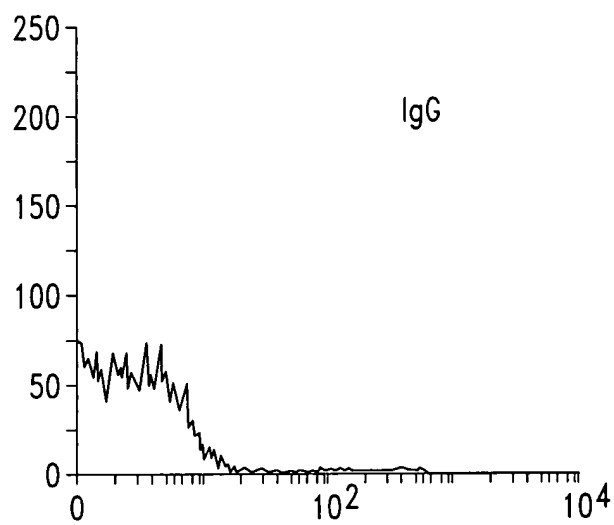


*Fig. 49B*



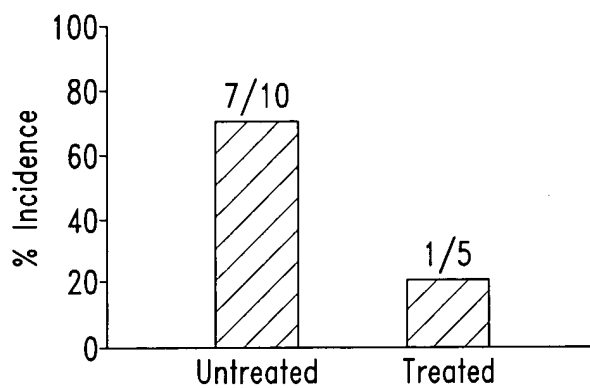
*Fig. 49C*

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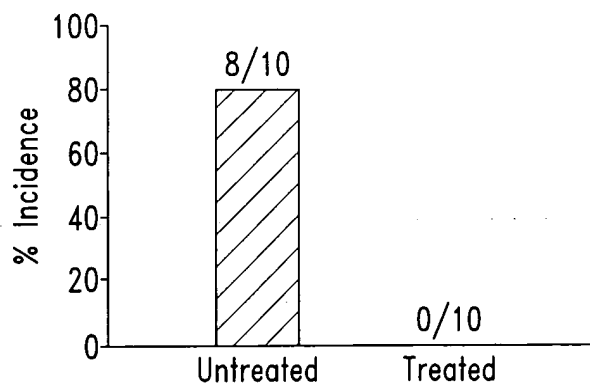
*Fig. 49D*





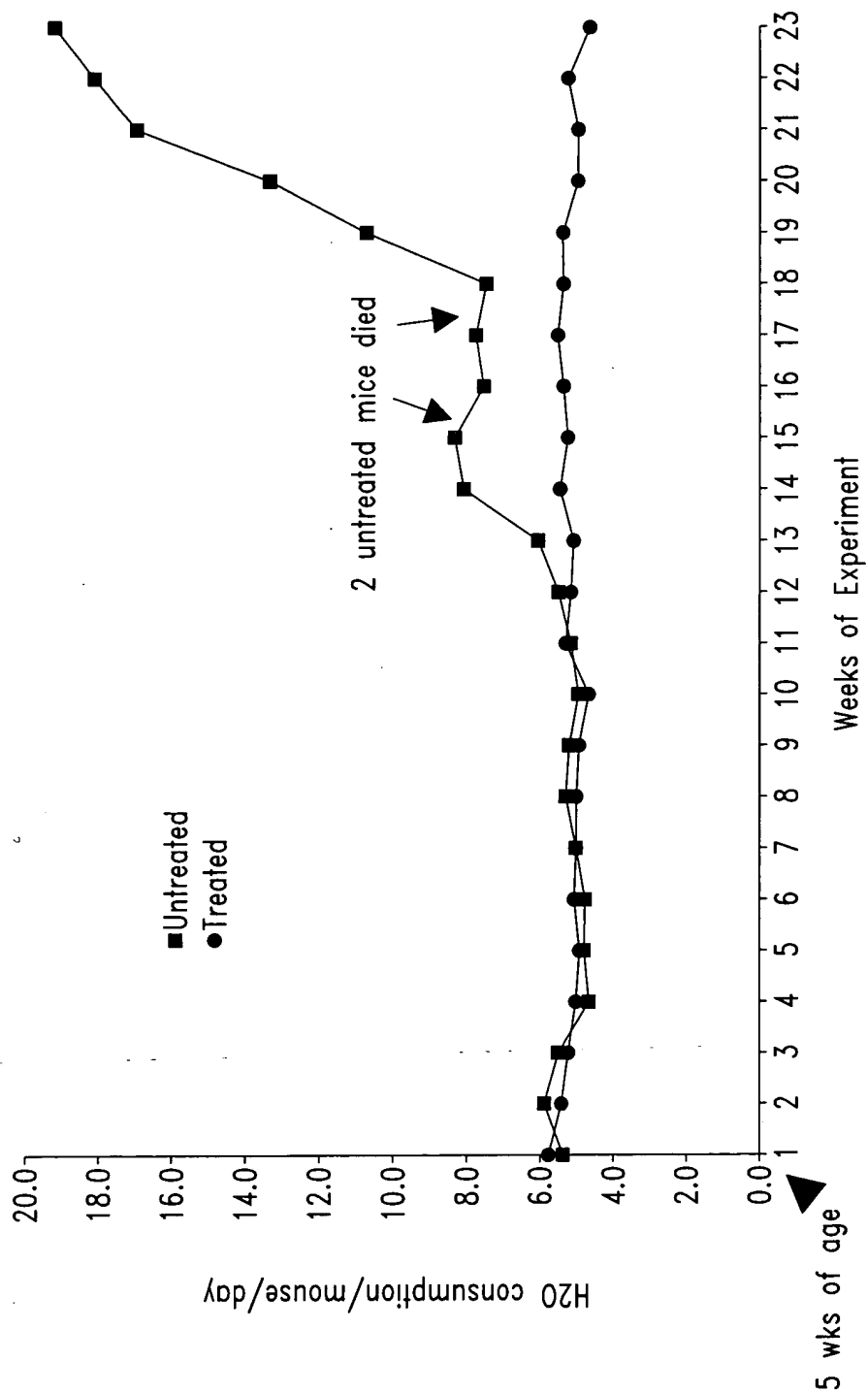
Note: normal blood glucose level = 99–140  
Incidence of abnormal blood glucose level in NOD mice

*Fig. 51*



Incidence of abnormal urine glucose level in NOD mice

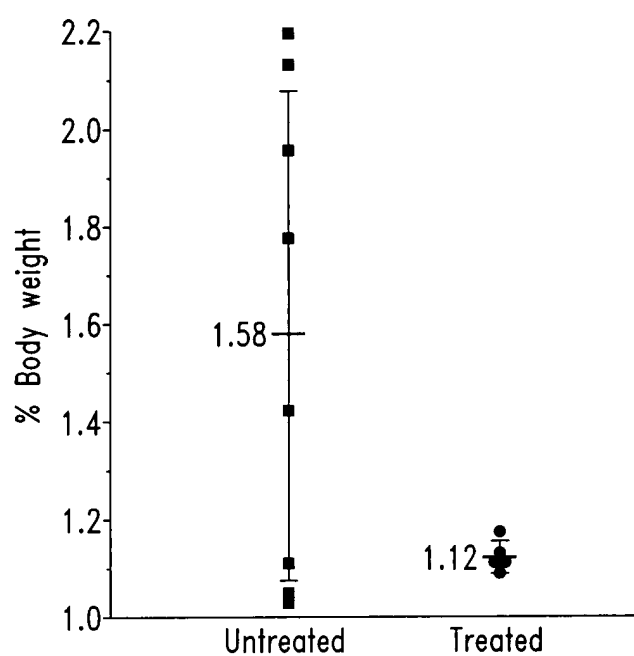
*Fig. 52*



Note: Increased H<sub>2</sub>O consumption indicative of Diabetes Insipidus, a complication of Diabetes Mellitus

Effect of P-16 peptide on water consumption in NOD mice

*Fig. 53*



Note: 2 untreated animals died during the course of experiment  
Effect of P- 16 peptide on kidney weight in NOD mice

*Fig. 54*